

*Social Entrepreneurship Based on Personal Unmet Needs:
Lead user characteristics' influences on nascent social entrepreneurs*

Marlies Koers-Stuiver



**Social entrepreneurship based on
personal unmet needs:**

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nascent social entrepreneurs**

Dieke Marlies Koers-Stuiver

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**SOCIAL ENTREPRENEURSHIP BASED ON PERSONAL
UNMET NEEDS:**

**LEAD USER CHARACTERISTICS' INFLUENCES ON NASCENT
SOCIAL ENTREPRENEURS**

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List of Abbreviations

BoP	Bottom of the Pyramid
EU	European Union
GT(M)	Grounded Theory (Method)
IP	Intellectual Property
NGO	Nongovernmental Organization
PC3	Product Co-Creation Centre
R&D	Research and Development
Star/t	Startup Accelerator Refugees Twente



Everybody hurts

Everybody bleeds

Everybody bends to fill a need

Everybody's born with their own curse

And I'm not alone

Everybody cries

Everybody breathes

Everybody wants to feel they're free

Deep inside I know what I am worth

A life of my own

M.I.N.E (End This Way): Five Finger Death Punch

Acknowledgements

“The first step is the one you believe in, the second one might be profound.”¹

In 2013, my PhD journey began when it was time to choose a Master’s thesis assignment. I wanted to do an assignment at the university, so that I could combine it with my part-time job. Knowing this, a classmate sent me a Tubantia article in which Rik van Reekum and Frans Jonkman, in an interview, spoke about their research topic; they needed students for Bachelor/Master’s assignments. I contacted Rik, who was interested in lead users and social entrepreneurship. I had heard about social entrepreneurship in a class taught by Raja Singaram.

Aard Groen took over being the first supervisor of the Master’s thesis project, resulting in a stronger link to the bottom of the pyramid and the Product Co-Creation Center (PC3). Aard does not like to micromanage, and I don’t like to be micromanaged, so that clicked. While I still doubt the quality of that work, Aard thought it was good enough to offer me a PhD position to continue the work on lead user-based social entrepreneurship in a BoP setting. At the time, PC3 was searching for ways to make the project more concrete, extend it, and roll it out. One avenue was via PhD research. My intended research, with that of Monica Ramos, was seen as a possible way to do this. Aard asked me to consider becoming a PhD candidate. While growing up, I never thought I would be a researcher, and I had trouble seeing myself as one. I am hands-on, a go-getter, and I thought I would be too practical to do something as theoretical and solitary. However, I also considered it an opportunity to develop myself professionally and personally. I really wanted to prove to myself, and perhaps to a few others, that I could do it. So, I became a PhD candidate in October 2014.

It has been a journey, professionally and personally and, honestly, sometimes a rocky road in both areas. When I started there was only an informal project; there was no consortium and no funding. Being free to shape your own PhD project was both a blessing and a curse. I worried about what the ‘right’ parameters were, about what the scope should and could be, and about whether what I was doing was okay and up to standard. I believed I did not belong at the

¹ Shinedown: I Follow You.

University and that I could not live up to the expectations. The insecurities with the temporary contracts did not help. Finally, mid-2016, I received a PhD contract that lasted to 2018 and that was later extended for the duration of my two pregnancy and maternity leaves. At times, self-doubt and insecurities prevailed, and I wanted to throw in the towel. I found it hard to find my own way, my scientific home, and to decide when it's good enough. I found it even harder to stand in front of rooms of strangers, overcoming my perfectionism and internal barriers and to stay on course. Some people have a natural flow and ease into new experiences; I don't.

In 2015, I married Bart, the love of my life. The next year we moved to a *grottemensenhuis*. The two other loves of my life were born – Roos in December 2016 and Tibbe in July 2018. We are extremely blessed and count our blessings with them. Yet during my first pregnancy, I became depressed again, and the anxiety and panic attacks I had had relatively under control returned more severely. I realized that I needed to do much work to overcome the unhealthy coping mechanism I had internalized over the years, and that I couldn't do it alone. I got help. It has been a long road, but it got better. I feel better. For this I also thank Elsje Hendriksen and colleagues. As every working parent knows, it's not easy to combine family life and work life. Nonetheless, I have learnt so much. Now, retrospectively I am grateful for everything that happened, both professionally and privately. It made me a better mother, wife, friend, and colleague, and a better person all-round. It also strongly shaped my research interests.

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later, I would be at Venturelab North in Groningen, temporarily taking over Rachel's job while she went on maternity leave.

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I wrote the final part of my dissertation while working in Groningen at the UGCE, and I thank all my UGCE colleagues, especially Aniek and Rachel, for the warm welcome I received and for making me a part of the team from day one. It has truly been a warm bath!

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"Yeah, I'm a lucky man. To count on both hands, the ones I love."²

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² Pearl Jam: Just Breathe.

³ Celine Dion: Because You Loved Me.

⁴ Stone Sour: Song #3.

Chapter 1: Introduction

1.1 The Beginning

In 2013, I started my Master's thesis project, examining whether (lead) user-innovators in the bottom of the pyramid (BoP) become social entrepreneurs. The title of this project was *From user-innovator to social user entrepreneur; can these factors also be detected in base of the pyramid situations?* User-innovators are often lead users who “face needs that will be general in the marketplace, but face them months or years before the bulk of the marketplace encounters them, and expect to benefit themselves, or similar alike, by using the innovated product or service.” (Von Hippel, 1986, p. 796). This study explored the analogies between the characteristics and factors of lead user entrepreneurs and social entrepreneurs. The underlying idea driving this Master thesis was that, due to the lead users' characteristics, as well as the specific context that they are in, users – instead of manufacturers -may be better suited to develop innovations in the social domain. The objective was to examine whether user-innovators⁵ become social entrepreneurs in deprived contexts, such as the BoP. The research question was: *What are the characteristics and factors that influence the transition from user-innovators to user-entrepreneurs when examining this concerning social entrepreneurs in the context of the base of the pyramid?*

This Master's thesis was the beginning of my studying the relationship between (lead) user-innovators and social entrepreneurs, and helped me to understand the basic theories and literature that underlie these concepts. I could use the insights from various authors to examine the process of lead user-based social entrepreneurship in a deprived context (Praceus, 2014; Shah, Smith, & Reedy, 2012; Shah & Tripsas, 2007, 2012; van der Boor, Oliveira, & Veloso, 2014; Viswanathan & Sridharan, 2011; von Hippel, 1978, 1986). It introduced me to personal unmet needs, a concept that shows the links between the motivational triggers of user-innovators and some social entrepreneurs. Lead users have been referred to as ‘black swans.’ These insights form the basis of Chapter 2. My Master's thesis was my first encounter with the difficulty of finding user-innovators who become social entrepreneurs, especially in the BoP. At the time,

⁵ The terms lead user, user-innovator, and consumer-innovator are used interchangeably in scientific articles (Flowers, De Jong, & von Hippel, 2012; Stock, von Hippel, & Gillert, 2016; von Hippel, Ogawa, & De Jong, 2011).

the content analysis based on secondary data of cases from Changemakers.com was not the most effective way to find lead users.

I found that, in individuals' processes of targeting the BoP with social value creating solutions, several analogies resembled the user innovation process. One factor was the high expectation of innovation-related benefits were based on a personal unmet need or dissatisfaction with the current state and that resulted in the development of innovations to serve in-house purposes. We found that all these entrepreneurs were inspired by personal experiences and the desire to help others. We found that prior knowledge and product-related knowledge helped these entrepreneurs to recognize opportunities. One finding, although outside that research's scope, was that there are also analogies between user innovation and social entrepreneurship in developed countries. This research helped to enlarge our understanding of the drivers of and barriers to users in BoP settings starting a social enterprise.

1.2 Project Description

While this PhD project was carried out independently from the PC3 project, in the first two years, the objective was to contribute to the development of an economically suitable and scalable model to boost the development of deprived regions by providing persons with the competences needed to start their business. This can be modeled as follows (see Figure 1).

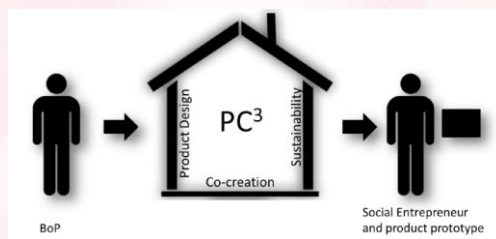


Figure 1. The PC3 Process derived from Jauregui-Becker et al., (2012, p. 9)

The PC3 project's objectives were based on the underlying hypothesis that "a large group of people in deprived areas have entrepreneurial skills and creative power but no means to exploit this and develop their products and business." (Jauregui-Becker, Franco-Garcia, & Groen, 2013, p. 10). To overcome these challenges, the PC3 project aimed to develop a specialized program in which potential social entrepreneurs with no required technical or business expertise interact with a panel of experts to co-create (innovate) products from an initial

idea to a physical prototype with a business plan (Jauregui-Becker, Franco-Garcia, & Groen, 2012; Jauregui-Becker et al., 2013). The targeted individuals would preferably have lead user characteristics, so as to enhance the innovation efforts' success. Thus, we first needed to assess whether we could detect these characteristics in a BoP context. This explains my PhD research's scope – to examine whether (lead) user-innovators become social entrepreneurs. The idea was to single out the relevant characteristics and elements and to incorporate them into the training program.

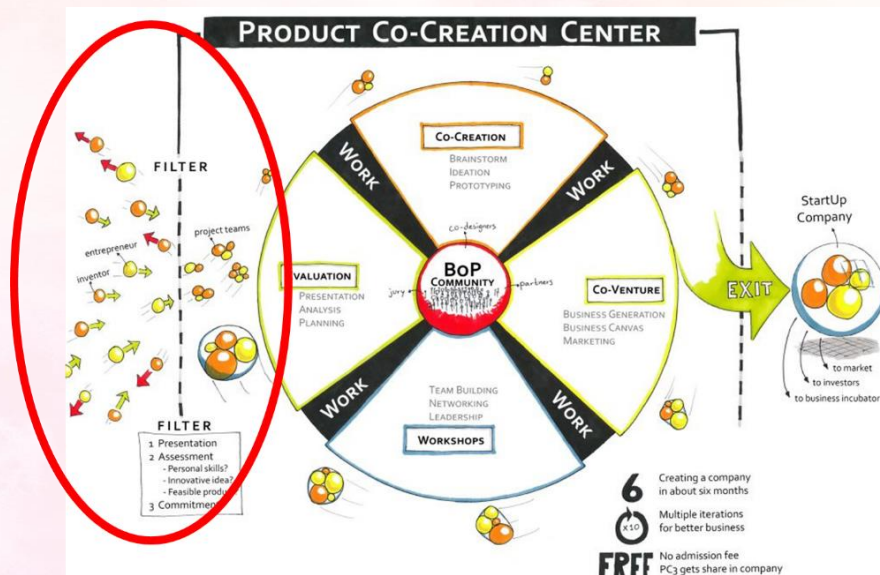


Figure 2. A Detailed Overview of the PC3 Project

To have more opportunities to collect data, my research in PC3 deviated from a BoP setting to a deprived context. The PC3 project was working hard to build a consortium and to find funding to put the research into action. Trouble attracting finance and the difficulties of building a consortium meant that the data collection started relatively late in the PhD process – in March 2017. During that time, a partnership between the University of Twente and Move2Social had started. I had the opportunity to do research in the Move2Social project, which started in the Twente region, where (nascent) social entrepreneurs enrolled in Move2Social to advance their business (ideas). Owing to its success, multiple rounds were held, and the program extended to multiple locations in the Netherlands. Owing to the contextual elements and the program's applicant

selection criteria, it was no longer possible to focus on deprivation only, which changed this research's scope.

Because PC3 was still an informal project within the University, it was difficult for PC3 to balance the dual role of being researchers and taking responsibility for the project management, especially considering the lack of time and resources. Thus, the choice was made to collaborate with outside partners. Juan Jauregui-Becker set up a collaboration that resulted in the Startup Accelerator Refugees Twente (Star/T), a program that is open to all aspiring refugee entrepreneurs. In this project, PC3 was an initiator and a partner, with the project management outsourced to Mindt. Owing to this change, the data collection shifted to examine refugee entrepreneurship based on personal unmet needs instead of user-based (social) entrepreneurship in a deprived setting.

These changes resulted in the final focus being more on the (social) entrepreneurial part, specifically on aspects whether lead user-innovators become social entrepreneurs, and in a more central role of personal unmet needs and unique knowledge related to prosocial orientations and social entrepreneurship. Although there are analogies with the initial design, this resulted in changes to the research design and objective along the way. The PC3 project eventually diminished, because it was unable to attract financial resources to secure its operations.

1.2 Research Objective

The relationships between opportunity recognition, innovation, entrepreneurship are irrefutably established (Drucker, 1985; Kirzner, 1978; Schumpeter, 1934). Innovation is at the core of established firms achieving or retaining a competitive advantage, and it is a source of new venture creation. It was long assumed that innovation happened within a firm in a closed and vertical process (Bogers & West, 2011). Distributed agency deviates from this, focusing on knowledge that is heterogeneously distributed among actors (Von Hippel, 1986). Lead user innovation is a form of distributed agency. von Hippel was one of the first to focus on the innovating potential of lead users who solve a problem they experience in their daily life or profession (von Hippel, 1978, 1988, 2005, 2017).

In this dissertation, I incorporate the notion of the distributed innovation model in which users – instead of established firms – are at the source of new products

and services developed to overcome their own personal unmet needs in the social domain. I argue that under some conditions users – instead of manufacturers- owing to their specific characteristics may sometimes be better suited to overcome unmet needs in the social domain. I link personal experiences and personal unmet needs to market and governmental failures and examine these links in in more depth. These failures related to specific life events may cause unmet needs which may serve as a proxy for lead user-based social entrepreneurship.

Based on work by von Hippel and other scholars who have researched user-led innovation and entrepreneurship⁶, this dissertation has as its starting point lead users' roles in the innovation process and the commercialization process. I examine whether and to what extent user-innovators become social entrepreneurs, with a specific focus on the roles of personal unmet needs. I explore various aspects of the lead user concept in relation to social entrepreneurship via a mixed-method approach. Thus, the research in this dissertation deviates from the traditional view of innovation and entrepreneurship. The insights from this research may advance the literature on lead user-innovators and social entrepreneurs, and may contribute to the development of novel approaches to fulfill social unmet needs, to deliver new insights for entrepreneurship support, and to empower individuals in starting a business based on their personal unmet needs.

1.2.1. Lead User-innovators

I use the insights from the lead user innovation and entrepreneurship literatures to study social entrepreneurship. von Hippel is one of those who described lead users' potential in the innovation process (von Hippel, 1978, 1988, 2005, 2017). In his view, lead users “face needs that will be general in a marketplace—but face them months or years before the bulk of that marketplace encounters them, and—are positioned to benefit significantly by obtaining a solution to those needs.” (Von Hippel, 1986, p. 796). Lead user-innovators can be professional users, private end-users, or intermediate users who are the first to develop an innovation to a functional state without the assistance of producers, and who

⁶ (Baldwin, Hienerth, & von Hippel, 2006; Flowers et al., 2012; Franke, von Hippel, & Schreier, 2006; Lüthje, 2004; Lüthje, Herstatt, & von Hippel, 2005; Morrison, Roberts, & von Hippel, 2000; Shah et al., 2012; Shah & Tripsas, 2007, 2012; Von Hippel, 1986, 2005; von Hippel et al., 2011).

expect to benefit from using the innovated product or service. Lead users have long been viewed as a key source for firms to incorporate into their new product development process, which formed the basis for the lead user methodology.

Lead users have developed several products in various industries, including the snowboard, the skateboard, the mountain bike, the rodeo kayak, and many product innovations in the juvenile industry (Baldwin et al., 2006; Franke & Shah, 2003; Lüthje et al., 2005). An example described by Shah and Tripsas (2007) is that of Baby Einstein, which was founded by a mother who needed a product for her baby and who used her prior knowledge and need information to develop one that did meet her needs. In contrast to what was assumed, user-innovators commercialize their innovations and become entrepreneurs, yet often 'accidentally,' and are driven by different reasons to traditional entrepreneurs (Chandra & Leenders, 2012; de Jong, 2010; Frederiksen, Dahlander, & Autio, 2008; Haefliger, Jäger, & von Krogh, 2010; Hamdi-Kidar & Vellera, 2012; Shah et al., 2012; Shah & Tripsas, 2007, 2012; Yu & Ogawa, 2012). Although there has been some research into lead user-based entrepreneurship, we need research into the different domains in which lead user-based entrepreneurship occurs as well as users who use hybrid (social and commercial) forms in their organization (Hamdi-Kidar & Vellera, 2018; Shah & Tripsas, 2007).

1.2.2. Social Entrepreneurs

One of the most famous examples of social entrepreneurship is Muhammad Yunus, who founded Grameen Bank, an institution that provides microcredit to the poorest of the poor. These people could not get a loan before. Grameen helps them out of the poverty trap and opens a range of possibilities for this marginalized group of people, which has helped them to better sustain themselves. Another example is Tony Chocolonely, an enterprise that battles chocolate crime by working toward 100% slavery-free chocolate. Most chocolate companies underpay their employees; in some instances, they earn so little that they fall below the poverty line. This organization wants to produce chocolate with a clean conscience by paying fair wages to employees and by buying directly from cocoa farmers. Less known is Green Wheels, a transportation company that offers a sustainable alternative to transportation by owning cars that people share so they do not have to buy a car themselves. It provides the car when needed, so people only use a car when they order one, reducing CO2 emissions. These are just a few examples of social enterprises that focus on the

environment, the reduction of inequality, and the empowerment of otherwise marginalized individuals.

I define social entrepreneurship as entrepreneurial activities that address societal pains and enhance their customers' social wealth by creating social value (Lepoutre et al., 2013; Zahra et al., 2009). Social entrepreneurs are often active in the environmental and the public domains (Lepoutre et al., 2013; Short, Moss, & Lumpkin, 2009). There are various schools of thought that address social entrepreneurship from different angles. This thesis contributes to the social innovation school of thought. In this approach, innovation is the central focus, based on a Schumpeterian notion (Dees & Anderson, 2006; Young & Lecy, 2014). Social entrepreneurs are pioneers and change-makers that create new services or improve the quality of services, methods of production, or production factors, new forms of organizations, or new markets (Defourny and Nyssens 2010, p.42). The research has focused on the development of new and improved ways to address social unmet needs (Bacq & Janssen, 2011). In this school of thought, the individual entrepreneur is the main focus (Hoogendoorn, 2011). Researchers have focused on the defining characteristics of an entrepreneur. Likewise, this dissertation aims to contribute to the spectrum school of thought. Social enterprises range from charitably supported non-profits to commercial non-profits substantially supported by market revenues, to socially responsible businesses, to businesses purely devoted to profit maximization (Young and Lecy 2014, p. 7). The spectrum school argues that social enterprises can be placed on a continuum between a social mission and an economic one (Austin, Stevenson, & Wei-Skillern, 2006; Hahn & Ince, 2016; Peredo & McLean, 2006; Young & Lecy, 2014). So far, the research regarding the dual mission addresses this in the form of a dichotomy or trade-off causing organizational tension or mission drift (Albert & Whetten, 1985; Costanzo et al., 2014; Moss et al., 2011; Smith, Gonin, & Besharov, 2013; Stevens, Moray, & Bruneel, 2015).

Societal value		Financial value				
Charity/ Citizen Initiatives		Charity/ Citizen Initiatives			Regular Enterprises	
Only donations/ Subsidy	Donations/ Subsidy and income from market	Biggest part of income from market	Biggest part of income from market, Profits fully reinvested	Biggest part of income from market, Profits paid out limited	CSR+ in core business	Purely commercial
Only societal impact		Societal impact first			Financial impact first	

Sociaal Economische Raad (2015, p. 36), Social Enterprise NL (2014, p. 13)

Figure 3. Spectrum Approach

There are more socially oriented and more economically oriented social entrepreneurs; they all try to balance their social and economic missions in some way (Battilana & Lee, 2014; Lepoutre et al., 2013; Miller et al., 2012). Thus, there is a need for research that considers the diversity and different dimensions of social ventures and that distinguishes between their social and economic goals (Hoogendoorn, 2011). Likewise, there have been calls for research into the antecedents of and motivations for starting a social business (Douglas & Prentice, 2019; Saebi, Foss, & Linder, 2019; Short et al., 2009).

The research in this dissertation responds to these calls by incorporating the insights from the literature on innovating lead users and user entrepreneurs to shed light on the antecedents of new venture building, and how these influence various aspects of a business, so as to advance the literature on social entrepreneurship. I will now describe how this will be achieved.

1.3. Research Questions

The central research question that guides the research in this dissertation is whether lead users become social entrepreneurs and what personal unmet needs' roles are in this process. I argue that market and governmental failures may cause unmet needs and can trigger the user innovation process and, subsequently, the social entrepreneurship process. I specifically examine personal unmet needs' influences in starting a social business.

Main research question Do lead user-innovators become social entrepreneurs; if so, how, and what are personal unmet needs' roles in this?

The following studies contribute to answering this main question.

Study 1: A Review of the Literature: From Lead User-Innovator to Social Entrepreneur

This chapter sets out to establish the theoretical basis for studying lead user-based social entrepreneurship and to assess the current state of the field, to identify the authors who have made key contributions, and to derive the constructs used in the rest of the dissertation. To date, research has examined the triggers of lead user innovation and entrepreneurship separately from those of social entrepreneurship. Both lead user innovation and social entrepreneurship share that most research is based on anecdotal and case-based evidence (Bogers, Afuah, & Bastian, 2010; Lepoutre et al., 2013), which makes it hard to investigate a theory's boundaries and provides interesting avenues for research (Bacq & Janssen, 2011; Mair & Marti, 2006; Yu & Ogawa, 2012). Similarly, we need detailed research into the antecedents of social entrepreneurship (Short et al., 2009). To better understand social entrepreneurs' opportunity recognition and venture building processes, we draw on the insights from the lead user innovation literature (Von Hippel, 1986, 2005) and scholars who have studied the phenomenon of user-innovators who act to commercialize their innovations (Baldwin et al., 2006; Bogers et al., 2010; Shah & Tripsas, 2007).

The systematic literature review is guided by the following research question:

Research question 1 What is the theoretical basis of lead user-based social entrepreneurship, and how are the literature streams on lead user innovation, user entrepreneurship, and social entrepreneurship related?

The outcome of this systematic literature review is a conceptual model that can be tested in future research.

Study 2: From Lead User-innovator to Social Entrepreneur: An Illustrative Case Study

Study 2 provides a stepping stone to assess the theoretically derived constructs in real life. By conducting an in-depth case study, we empirically examine what drives three lead users to become social entrepreneurs which helps to better understand the phenomenon. Likewise, these insights will provide a good starting point to examine lead-user entrepreneurship on a broader scale. The starting point of this research is to empirically explore the systematic literature review's findings.

Research question 2 What are the defining elements of lead user-based social entrepreneurship in practice?

Study 3: From Lead User to Social Entrepreneur: How Lead User Characteristics Influence Starting a Social Business

In this research, we further examine whether having personal unmet needs and lead user characteristics influence starting a social business, based on a regression analysis combined with interviews. The insights from the previous study guide these research efforts and help to establish which variables need to be considered. In this study, we develop a questionnaire that is distributed in the Move2Social training program, which also serves as input for the semi-structured interviews.

Research question 3 To what extent do personal unmet needs as well as lead user characteristics contribute toward establishing a social business?

The remaining studies in this dissertation focus on personal unmet needs and how they relate to starting a (social) business as well to the business' organizational missions.

Study 4: (Social) Entrepreneurship by Refugees: An Explorative Study of Refugees' Networks and How Previous Experiences, Personal Unmet Needs, and Unique Life Experiences Influence their Prosocial Orientations

This study examines how personal unmet needs influence nascent refugee entrepreneurs in starting a business in the host country. Very few studies have focused on entrepreneurial refugees in a host country (Nayır, 2019). The current stance is that either culture or discrimination result in refugees wanting to start

a business (Johnson, 2000). While there is much entrepreneurial potential among refugees (Wright, Bishop, & Ayre, 2009), this potential is seldom developed. Similarly, little is known about the conditions that enable refugees to identify and act on entrepreneurial opportunities, which opens opportunities for research. The refugees' unique circumstances often lead them to experience personal unmet needs. Such specific life events may influence prosocial entrepreneurial behaviors (Yitshaki & Kropp, 2016). Prosocial orientation is a focus on helping others instead of benefitting oneself (Miller et al., 2012; Stevens et al., 2015), which can trigger social entrepreneurship. We examine the relation between these specific life events, prior knowledge, personal unmet needs their prosocial orientations in starting a (social) business. Further, we examine how nascent refugee entrepreneurs utilize their network and what hinders them in starting a business. Thus, this study seeks to answer the following research question.

Research question 4 To what extent do personal experiences and prior knowledge influence refugees in becoming (social) entrepreneurs in a host country, 2) what barriers can we detect, and 3) what are their networks' roles in this?

Study 5: The Interplay of Conditions that Affect Social Entrepreneurs' Focus on their Organization's Mission: The Configuration of Conditions that Result in a Dominant Social, Economic, or Hybrid Mission

This research is based on the continuum approach, where social enterprises can vary in their focus on a social mission and an economic mission. Social enterprises are referred to as hybrids, because they combine a social and an economic mission (Austin et al., 2006; Mair & Marti, 2006). How enterprises balance their dual mission is seen as a 'black box.' (Stevens et al., 2015, p. 1068). There has been a call for researchers to examine hybrid social entrepreneurial organizations in depth (Hahn & Ince, 2016) and to better understand how hybridity helps to explain various organizational forms and identities (Doherty, Haugh, & Lyon, 2014; Moss et al., 2011; Wilson & Post, 2013). To date, there is little knowledge of the conditions that produce a focus on an organization's mission. In this research, we examine how personal unmet needs as well as attention to the social and economic objectives, social innovation, and

entrepreneurial experiences result in social entrepreneurs' dominant mission type. To do this, we use a configurational approach (Fiss, 2007; Ragin, 1987, 2008; Rihoux, 2013).

Research question 5: Are personal unmet needs, entrepreneurial experience, social innovation, and attention to social and economic objectives sufficient to produce entrepreneurial mission types for social enterprises; if so, how?

The following table summarizes the research questions, theoretical basis, and methods we used in the studies:

Table 1. An Overview of the Studies

	Research question	Theoretical basis	Method(s)
Study 1	What is the theoretical basis of lead user-based social entrepreneurship, and how are the literature streams on lead user innovation, user entrepreneurship, and social entrepreneurship related?	Lead user innovation, user entrepreneurship, social entrepreneurship	Illustrative case study based on three example cases
Study 2	What are the defining elements of lead user-based social entrepreneurship in practice?	Lead user innovation, user entrepreneurship, social entrepreneurship	Regression analysis combined with interviews based on a sample of 133 nascent social entrepreneurs who enrolled in a social entrepreneurial training program

Study 3	To what extent do personal experience and prior knowledge influence refugees in becoming (social) entrepreneurs in a host country, 2) which barriers can we detect, and 3) what are their networks' roles in this?	Entrepreneurial cognition, prior knowledge, prosocial orientation, user innovation and entrepreneurship, network	Descriptive statistics combined with interviews based on a sample of 36 nascent refugee entrepreneurs who enrolled in an entrepreneurial training program for refugees
Study 4	Are personal unmet needs, entrepreneurial experience, social innovation, and attention to social and economic objectives sufficient to produce entrepreneurial mission types for social enterprises; if so, how?	Configurational theory, prosocial orientation, social entrepreneurship	FsQca analysis combined with interviews on a sample of 133 nascent social entrepreneurs who enrolled in a social entrepreneurial training program

1.4 Scientific Approach

This dissertation examines the influences of personal unmet needs on social entrepreneurship. I examine whether experienced personal unmet needs drive users to develop innovative social value creating solutions that can be brought to the market. The theoretical basis that underlies this research are the lead user innovation, user entrepreneurship, prosocial orientation, and social entrepreneurship and refugee entrepreneurship literatures. Owing to the initial objective of this research – to enhance knowledge as a tool for implementation by the PC3 project – this dissertation is based on the engaged scholarship approach. van de Ven (2007) developed the engaged scholarship approach to bridge the gap between theory and practice; it advocates research that is grounded in reality and that is conducted with an open view toward multiple

realities and incorporates the stakeholders. The related philosophy is the critical realist philosophy of science.

Notably, “underlying any form of research is a philosophy of science that informs us of the nature of the phenomenon examined (ontology) and its methods for understanding it (epistemology).” (van de Ven & Bechara, 2007, p. 36). Ontology can be understood as a vision of reality (Gerring, 2012, p. 430). It is used to inform the assumptions used to view the world around us, for instance, whether it is regarded in terms of social order or constant change (Bhattacharjee, 2012). Epistemology is the nature and origins of knowledge (Gerring, 2012, p. 420) and concerns the assumptions about ways to study the world, for instance, whether social reality is seen as objective or subjective (Bhattacharjee, 2012).

The critical realist philosophy of sciences is described by van de Ven and Bechara (2007, pp. 37-38) as follows: critical realism adopts an objective ontology, indicating that reality exists independent of one’s cognition. Further, it incorporates a subjective epistemology, which indicates that the real world is out there but one’s understanding of it is limited. Facts and observations are implicitly or explicitly theory-laden. There is no absolute truth, nor is any form of research value-free and impartial. To understand reality, which is complex, multiple perspectives need to be incorporated by the researcher, and theoretical and methodical triangulation is necessary to create robust knowledge, given that findings can be inconsistent or contradictory. Thus, critical realism adopts a pluralist approach, in which multiple methods are used in a methodology.

The critical realist perspective influences how entrepreneurial opportunities are researched. Alvarez and Barney (2007) found that opportunities can be discovered or created. Alvarez and Barney (2010) indicated that the discovery process is based on critical realism, since observable things can be studied by measuring their effects. This indicates that entrepreneurial opportunities can be perceived as objective and independent (Shane, 2003). Exogenous events trigger market imperfections, which alert individuals recognize (Kirzner, 1973), and the process is targeted to reduce risks (Alvarez & Barney, 2010). In my view, this does not necessarily disclose something about the subjectivity and interdependencies in the development of a discovered opportunity over time, resulting in a product, service, or organizational form that creates value. Opportunity creation is grounded in evolutionary realism, in which conditions are constructed through the interactions and interpretations of individuals instead of being objective (Alvarez & Barney, 2010). Here, reality is not by

definition objective, which contradicts the critical realist perspective. The creation process is path-dependent and emergent. In my view, this can also be assessed by tools and frameworks, which Alvarez and Barney (2010) argued are representative of critical realism. Nonetheless, it is important to think about the underlying assumptions that guide the methodology of research.

Above all, methodology is the task and criteria that govern scientific inquiry (Gerring, 2012, p. 427). In critical realism, the choice of methods should be dictated by the nature of a research problem (McEvoy & Richards, 2006). This dissertation uses a mixed-method approach (qualitative and quantitative techniques) to collect and analyze data. Mixed methods allow for a better understanding of a problem, and the data provide a more complete picture (Creswell & Clark, 2007). Thus, rigor and depth can be combined. However, this may have implications on the adopted ontological and epistemological stance, of which the limitations are refuted by McEvoy and Richards (2006, p. 76), who indicated that the “critical realist approach is compatible with all three of the purposes of methodological triangulation identified by Risjord and his co-authors.” These purposes are confirmation, completeness, and abductive inspiration. In this dissertation, I seek to understand lead user-based social entrepreneurship and personal unmet needs’ roles in various ways, such as via a case study, larger-scale survey research, and interviews.

1.5 Outline

The outline of my dissertation can be graphically displayed as follows (see Figure 4). Chapter 2 lays the groundwork for studying lead user-based social entrepreneurship and contains a systematic literature review on the relevant literature. Chapter 3 is the first confrontation of the theoretical constructs with the empirical reality in the form of an in-depth case study and provides the basis for studying lead user-based social entrepreneurship on a broader scale. Chapter 4 tests the variables on a larger scale sample of 133 (nascent) social entrepreneurs by conducting a multiple hierarchical regression analysis. Part 2 of the dissertation moves away from lead users and focuses on personal unmet needs. Chapter 5 explores, among other things, personal unmet needs in a sample of 36 nascent refugee entrepreneurs, while Chapter 6 focuses on personal unmet needs in social business’ dominant mission types by conducting a fuzzy set qualitative comparative analysis (FsQca).

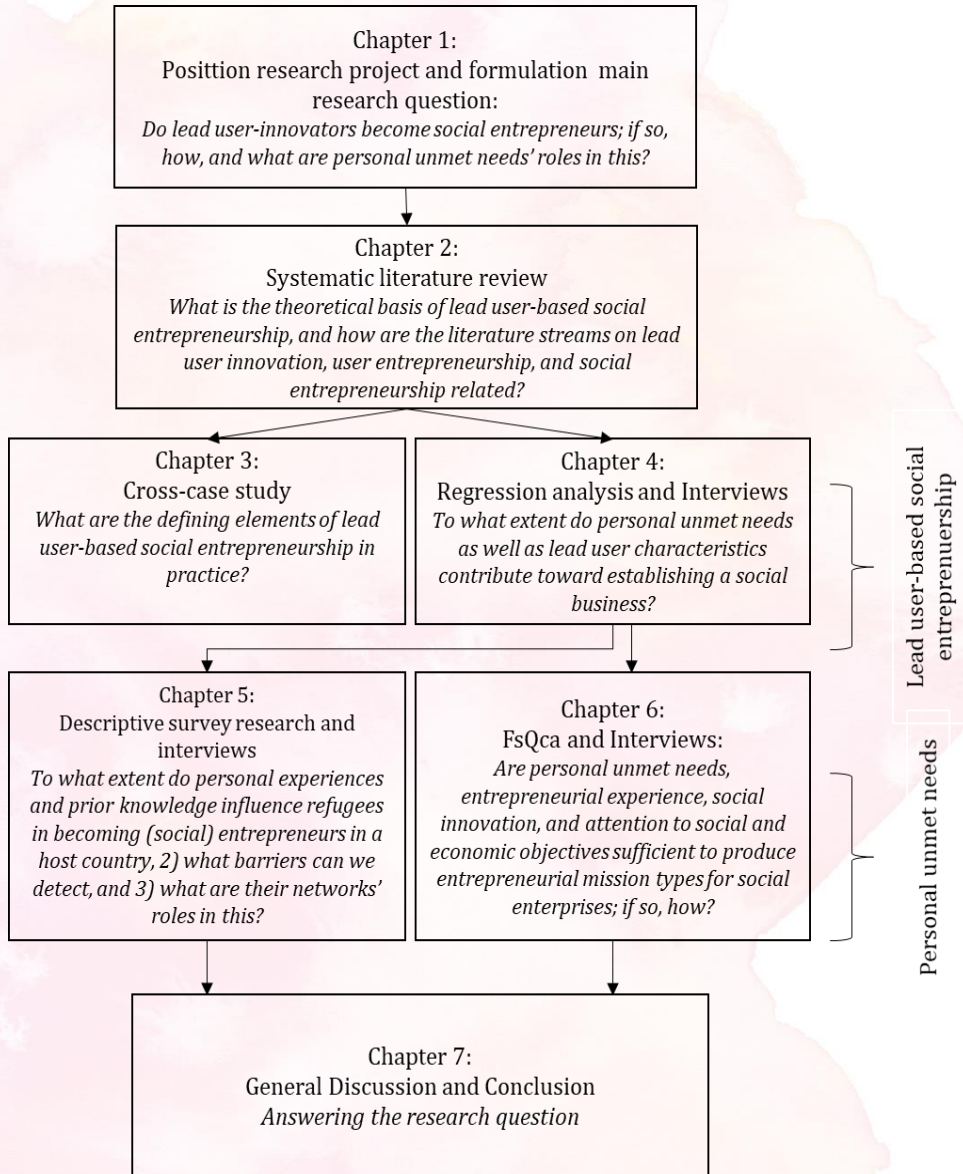


Figure 4. An Outline of this Dissertation

Chapter 2: A Review of the Literature: From Lead User-Innovator to Social Entrepreneur⁷

Summary

In this systematic literature review, we examine the relationships between lead user innovation, user entrepreneurship, and social entrepreneurship so as to provide the theoretical basis for lead user-based social entrepreneurship. Likewise, we study the links between the literatures to validate future research efforts regarding this phenomenon. In doing so, we are the first to examine lead user-based social entrepreneurship as an independent phenomenon. Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth by creating social value, while lead user-innovators are ahead of a market trend and expect to benefit from using an innovated product or service themselves. Lead users are the first to develop an innovation to a functional state without the assistance of producers. Based on our systematic literature review, we find the distinguishing elements of the lead user innovation, user entrepreneurship, and social entrepreneurship literatures. Central to both social entrepreneurship and lead user innovation is the function of solving (personal) unmet needs. Market and governmental failures cause unmet needs, which are solved in innovative ways. An experienced unmet need results in a unique position to recognize a social entrepreneurial opportunity that otherwise would not have been recognized. Users can use local and tacit knowledge to overcome information asymmetries that are beneficial to commercialize an innovation, similar to what a bricoleur does in the social domain. Another commonality is that both user-innovators and social entrepreneurs aim for community enhancement; for both, often non-monetary motives drive them to develop highly innovative solutions while overcoming resource scarcity in the innovation process and in the commercialization process. We argue that owing to their characteristics, lead users – instead of established manufacturers- may sometimes better suited to innovate to overcome market and governmental failures. Based on our findings we develop a conceptual model that can be examined in future research.

⁷ Previous versions of this chapter have been presented at the 2015 High Tech Small Firm Conference, June 5-6, in Groningen, where I received the Best Junior Paper Award, and the 2015 13th Open and User Innovation Society Meeting, July 11-12, in Lisbon

2.1 Introduction

Thomas's father was dissatisfied with the care his disabled son received. He decided that, to change his son's situation, he needed to take matters into his own hands. His son's situation was not unique – many others like him needed better care. Thus, he decided to establish a commercial small-scale living facility for individuals with mental disabilities. The Thomashuizen seeks to provide better care and enhance the living conditions of disabled adults by giving tailor-made attention. There are now more than 100 Thomashuizen in the Netherlands, three in Belgium, with both Finland and Germany interested in the concept (Nauta & Loncke, 2010; Schulz & Steen, 2013). This personal unmet need put Thomas's father in a unique position to identify an opportunity he otherwise would not have recognized. This triggered the innovation process and resulted in alternative care for disabled adults in the form of a franchise formula. The Thomashuizen is a good example of lead user-based social entrepreneurship to overcome a personal unmet need caused by market and, or governmental failures.

We examine the relationship between social entrepreneurship and lead user innovation in depth. Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth by creating social value (Lepoutre et al., 2013; Zahra et al., 2009). Lead user-innovators can be professional users, private end-users, or intermediate users who are the first to develop an innovation to a functional state without the assistance of producers. They are often ahead of a market trend and expect to benefit from using the innovated product or service themselves (Von Hippel, 1986, 2005). The expectation is that user innovation will increase in the near future owing to the changes in technologies, modularization, and digitalization as well as the increase in less expensive communication channels (de Jong, 2010). Since the user innovation process is initiated by personal unmet needs and dissatisfaction with the present state, we expect that users may be an interesting source for innovations in the social domain. This is partly motivated by the research that found that market and governmental failures are at the forefront of opportunity recognition in social entrepreneurship (Alter, 2007; Austin, Stevenson, & Weiskillern, 2006a; Defourny & Nyssens, 2010; Santos, 2012; Seelos & Mair, 2005; Thompson, Alvy, & Lees, 2000). For instance, Lepoutre et al., (2013 p. 695) argue social entrepreneurship is an activity that by definition addresses social pains that are not adequately resolved by the state, civil society, or the market. These failures may cause unmet needs on which the user acts. Whether lead user-innovators are active in the social domain and whether they become social entrepreneurs is a field for future inquiry (Shah & Tripsas, 2007). Lead user

innovation has been studied in various industries, and is slowly shifting toward more sustainability-oriented domains (Grosse, 2018; Hyysalo, Juntunen, & Freeman, 2013; Ornetzeder & Rohracher, 2006). Recent studies have examined patients-as-innovators, who create and commercialize products and services that have had immense social value (Conway & Steward, 2009; Oliveira et al., 2015; Wood et al., 2013).

The literatures on user innovation and user entrepreneurship are fairly young (Bogers et al., 2010), and we still lack advanced insights that examine these in depth. The same applies to the social entrepreneurship field (Lepoutre et al., 2013; Short et al., 2009), which is still widely dispersed and spans different levels of analysis (Saebi et al., 2019). Both lead user innovation and social entrepreneurship share research that most of the research is based on anecdotal and case-based evidence (Bogers et al., 2010; Lepoutre et al., 2013), which makes it hard to investigate a theory's boundaries, yet provides interesting avenues for groundbreaking research (Bacq & Janssen, 2011; Mair & Marti, 2006; Yu & Ogawa, 2012). We help to close these gaps and provide a basis for studying lead user-based social entrepreneurship. We seek to answer the following research questions: *What is the theoretical basis of lead user-based social entrepreneurship, and how are the literature streams on lead user innovation, user entrepreneurship, and social entrepreneurship related?*

User-innovators who become social entrepreneurs present an interesting subgroup of entrepreneurs who can increase our understanding of social venture building and of the antecedents of social innovation and entrepreneurship. Knowledge about a specific context is often essential for developing novel innovations that meet existing social needs. Challenging life events lead some individuals to come up with product innovations they then launch in the market (Barendsen & Gardner, 2004; Yitshaki & Kropp, 2016). The motivations of (lead) user entrepreneurs and purposes behind their ventures are very different for inventors, opportunity-based entrepreneurs, and necessity-based entrepreneurs, and may therefore fit well in the social domain. Scholars have called for more in-depth research into the antecedents of social entrepreneurship activities (Short et al., 2009). To better understand social entrepreneurs' opportunity recognition processes and venture building processes, we draw on insights from the lead user innovation literature (von Hippel, 1986, 2005) and scholars who have studied the phenomenon of user-innovators who commercialize their innovations (Baldwin et al., 2006; Bogers et al., 2010; Shah & Tripsas, 2007).

Based on our systematic literature review, we found the characterizing elements of the lead user innovation, user entrepreneurship, and social entrepreneurship literatures. We found several linkages that establish a theoretical basis for examining lead user-based social entrepreneurship. Central in these literature streams are market and governmental failures, which cause (personal) unmet social needs on which users act when they experience these. These failure types also influence the market characteristics in which innovations and businesses are developed. Innovation is a key component of both lead users and social entrepreneurs. Likewise, both lead user-innovators and social entrepreneurs are driven by non-financial motives for developing solutions, while overcoming resource scarcity in the innovation process and in the commercialization process; also, both focus on community enhancement. Based on this, we developed a conceptual model that can be tested in future research.

Our research enhances insights into the motivational antecedents of (lead) user-based and social entrepreneurship, which improves our theoretical understanding of the sources of entrepreneurial opportunity recognition (Shah & Tripsas, 2012). Likewise, many researchers indicated that there is a need for theory-building in the social entrepreneurship literature by specifying different motivations for starting a social business (Bacq & Alt, 2018; Dacin, Dacin, & Tracey, 2011; Hockerts, 2017). We respond to these calls by incorporating the insights from the literature on innovating lead users that shed light on the antecedents of new venture building as well-advanced insights into innovativeness levels. Further, we are the first to examine lead user-based social entrepreneurship as an independent phenomenon, articulating directions for future research to empirically examine our findings. Insights from the (lead) user innovation literature are a valuable addition to the entrepreneurship field, especially in a time of dynamic and fast-changing environments in which the traditional manufacturer-active paradigm is shifting toward a more customer-oriented one.

2.2 Method

The literature forms the input for the confrontation with the research reality (Verschuren & Doorewaard, 2010). To collect the relevant articles, we followed the approach developed by Wolfswinkel, Furtmueller, and Wilderom (2013). It has five stages, with grounded theory (GT) as a basis. The advantage of this approach is that it helps to find the key concepts described in the various articles.

The five stages are: define, search, select, analyze, and present, see the steps underneath derived from (p. 47).

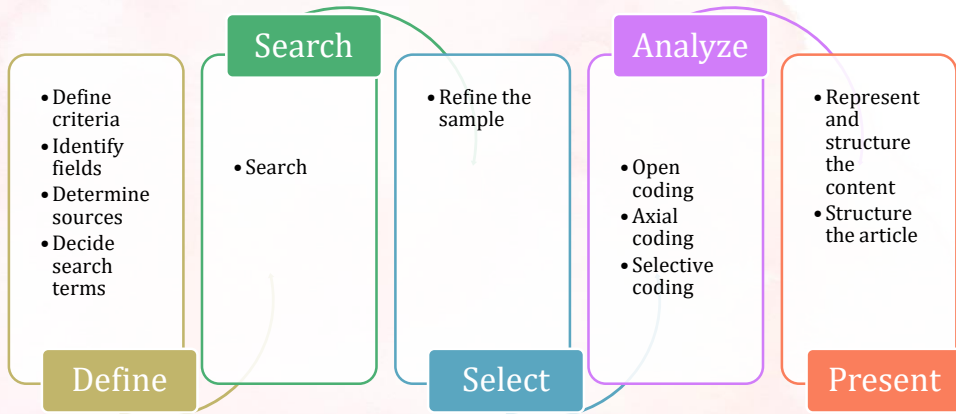


Figure 5. Five Staged Process Systematic Literature Review

Stage 1: Define denotes the criteria for inclusion. In our search for relevant studies, we used the following selection criteria: We filtered the articles based on four criteria, conducted separately: 'times cited,' 'relevance,' 'recentness,' and 'review only.' We selected the first 10 hits based on these four criteria. The research fields we focused on were innovation and entrepreneurship, and the databases we used were Scopus, Web of Science, and Google Scholar. The systematic literature review took place between 2013 and 2014. We searched for additional articles during the writing of several chapters, with a further focus on the research objective, design, and questions.

Concerning lead user innovation, we needed these articles to determine the characteristics, the trends in the field, and whether or not the research examined links within the social domain. These elements served as guiding criteria. We selected the seminal articles and assessed the citations in relation to their relevance.

Since our focus was to examine the relationships and leads between the user entrepreneurship process and the social entrepreneurship process so as to

assess whether lead user-innovators become social entrepreneurs, we initially treated user entrepreneurship as our focal point of departure. The first article published on user entrepreneurship was in 2000, followed by a six-year gap. Thus, all articles concerning user entrepreneurship were included during the search period. Concerning social entrepreneurship, we initially searched for connecting points to link the (lead) user innovation literature to the social entrepreneurship literature. Initially, the social value creation aspect was set as a context condition in which we would search for (lead) user entrepreneurs. Notably, as this PhD evolved and different data collection opportunities arose, so did the requirements for the literature on social entrepreneurship. This resulted in our also adding research from psychology, empathy, prosocial orientations, and sustainability. This formed part of an ongoing process in which literature was collected. In the social entrepreneurship field, other authors have already done extensive and thorough reviews (including but not limited to: Bacq & Janssen, 2011; Dacin, Dacin, & Tracey, 2011; Moss et al., 2008; Peredo & McLean, 2006; Phillips et al., 2015; Saebi et al., 2019; Short et al., 2009). So as to not reinvent the wheel, our focus was on finding the overarching concepts for the analysis. We filtered the articles based on four criteria, conducted separately: 'times cited,' 'relevance,' 'recentness,' and 'review only.' Adding more context-specific search words from the literature on (lead) user innovation did not lead to additional new insights relevant to this paper's scope.

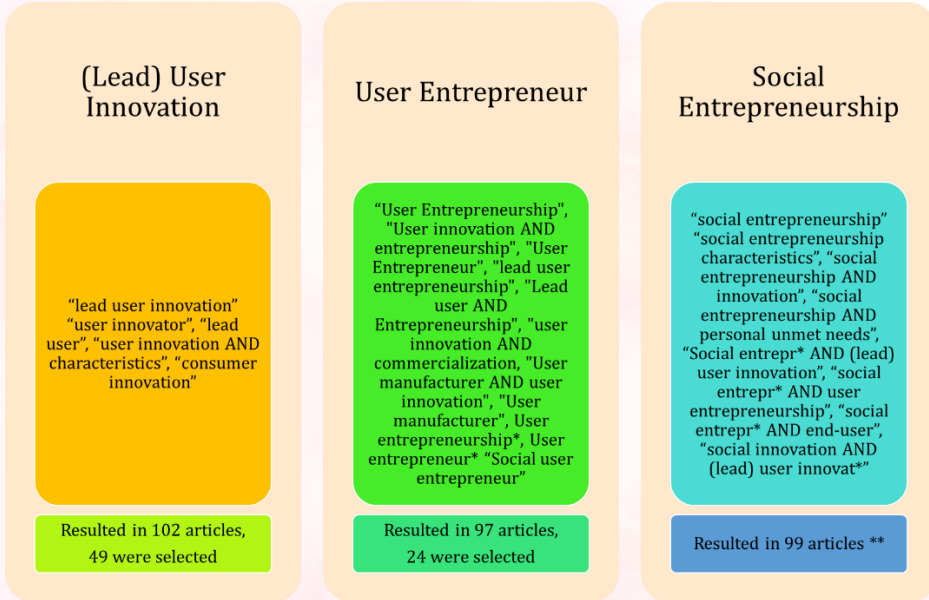


Figure 6. Included Search Words and Results

Stage 2: Search. This stage contained the actual search. Based on the keywords, we developed tables that went from 1 to 10 per database. We listed the titles of the hits in tables in Excel, which enabled the rapid removal of duplicates. Also, it enabled us to create categories that were deemed relevant to help the subsequent coding process.

Stage 3: Select. This stage contained the actual selection of the sample to be included. Because we used Excel, the duplicates were removed immediately. Thus, we did not have to do this in this step. We selected the articles based on assessments of the titles and abstracts. If this provided insufficient information, we also read the introductory text and conclusion. In some instances, we checked the journals' impact factors to determine the relative importance of the journals in which the articles were published. To enrich the data, we conducted a reference search and searched the Internet for additions. See also the selection process underneath. See Figure. 7 on the next page for the selection process.

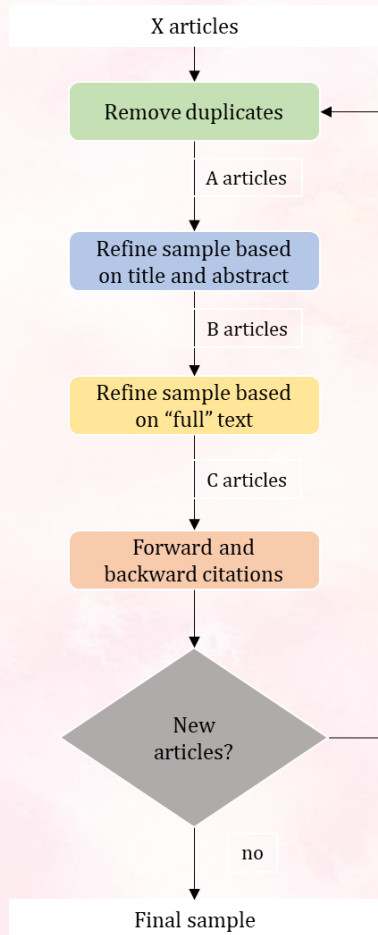


Figure 7. Selection Process

Stage 4: Analysis. We imported the articles that seemed relevant into Atlas.ti, which can be used for a systematic approach to unstructured data, i.e. data that cannot be meaningfully analyzed by formal, statistical approaches (Friese, 2013, p. 9). This has the benefit of immediately creating a codebook. The GT method has three coding phases: open, axial, and selective coding. Open coding establishes the precise meanings of the focal concepts (Verschuren & Doorewaard, 2010). Based on an explorative analysis of several articles, we developed several search entries to search for articles. We started with the article by Shah and Tripsas (2007), because it was cited the most and provided us with insights into the processes (lead) user-innovators undertake in commercializing their innovations. This served as step 1 to gain knowledge

about whether user-innovators become social entrepreneurs. Axial coding helps to define concepts and relates them to the focal phenomenon (Verschuren & Doorewaard, 2010). In this step, we brought together the defined concepts in main categories to distinguish between the elements that contributed to the lead user, the user entrepreneurship process, and the social entrepreneurship context. Finally, selection enabled us to establish key concepts and a detailed line of argumentation on their relationships to the literatures we used (Verschuren & Doorewaard, 2010). Thus, based on this, we were able to map the relationships between these codes and to formulate the process model based on the literature. In this dissertation, we use concepts derived from the theories on (lead) user innovation, user entrepreneurship, and social entrepreneurship. We will now present the findings.

Stage 5: Present. Based on the literature review, we found that several factors contribute to lead users' ability to recognize an opportunity for the innovation and the commercialization of innovations: lead user characteristics, skills and capabilities, *sticky* information, costs, community, and market conditions; we will describe these in Section 3. We also found several distinguishing characteristics of social entrepreneurship: social entrepreneurial characteristics, personality traits, resources, and market failures; we will describe these in Section 4. We examined whether there were interrelationships or whether elements could be complemented by using elements from the focal theories; Section 5 contains an overview in which we examine these elements in relation to one another, which will help to guide future research attempts.

2.3. Findings

2.3.1 Lead User Innovation

von Hippel (1986, 2005) stated that it was not established manufacturers but lead users who are often the source of many innovations. Lead users “face needs that will be general in a marketplace—but face them months or years before the bulk of that marketplace encounters them, and—are positioned to benefit significantly by obtaining a solution to those needs.” (Von Hippel, 1986, p. 796). Innovating lead users can be professional users, private users, intermediate users or end-users who are the first to develop an innovation to a functional state without the assistance of producers and who expect to benefit from using the innovated product or service (von Hippel, 1986, 2005). von Hippel argued that

lead users have the richest understandings of new product and service needs. When these can be identified, their ideas and prototypes should be incorporated into the firm's new product development process (von Hippel, 1988, 2005). Based on this, von Hippel (1986) developed the four-phase lead user method, which seeks to enhance organizations' innovative power and can assist in the development of breakthrough innovations. Lead user theory was initially developed to select and identify commercially attractive innovations developed by users to integrate into a manufacturer's production process. Since von Hippel's seminal work, many researchers have studied the various aspects of lead user innovation (Baldwin et al., 2006; Bogers et al., 2010; Lilien et al., 2002; Smith & Shah, 2013; van der Boor, Oliveira, & Veloso, 2014). A wide range of research has delved in to the characteristics of and differences between the innovation processes of lead users vs. non-lead users (Lilien et al., 2002; Lüthje, 2004; Schreier & Prügl, 2008). User innovation has been studied in relation to industrial products, intermediate professional users, and end-user innovation (Flowers et al., 2012; Lüthje, 2004; Raasch, Herstatt, & Lock, 2008). While there is an extensive body of literature on user innovation for industrial products and for intermediate (professional) users, the research into end-user innovation is fairly young (Flowers et al., 2012; Raasch et al., 2008).

Users have been at the source of inventing granola bars, sport drinks, mountain bikes, videogames, photography equipment, and baking products (Lüthje, 2004, p. 3; Von Hippel, 1986, 2005). End-users were fundamental to new industries, such as snowboarding, skateboarding, and windsurfing (Shah, 2000). These markets have developed and matured. In multiple industries, such as extreme sport (Baldwin et al., 2006; Hienert, 2006; Shah, 2000), film animation (Haefliger et al., 2010), juvenile products (Shah & Tripsas, 2007, 2012), bicycles (Hanna, 2008), and the virtual world (Chandra & Leenders, 2012), lead users have also commercialized their innovations. It is only recently that this is shifting toward more sustainability-oriented fields (Grosse, 2018), such as sustainable energy (Hyysalo et al., 2013; Ornetzeder & Rohracher, 2006), which provides interesting avenues for conducting research. Combinations of user-innovators as social entrepreneurs were also found in a study of grassroots innovations Ross, Mitchell, & May (2012) and of Huysentruyt and Stephan (2011) who study social entrepreneurs as lead users for service innovations. Other links to social entrepreneurship include studies that have covered patients-as-innovators, who are users that create and commercialize products and services that have had immense social value based on personal unmet needs relating to an illness

(Conway & Steward, 2009; Oliveira et al., 2015; Wood et al., 2013). However, much is still unknown about the potential of lead user-innovators in the social domain who create solutions different to established manufacturers.

With user innovation, the sources of the innovation are outside focal firms; thus, this is a distributed innovation process. Distributed innovation builds on the notion that knowledge is heterogeneously distributed among actors. User innovation deviates from the closed innovation model and the long-held belief that manufacturers are the most important sources of innovation (Bogers & West, 2011, von Hippel, 1988). von Hippel (1988, p.25) modeled the user innovation process as follows:

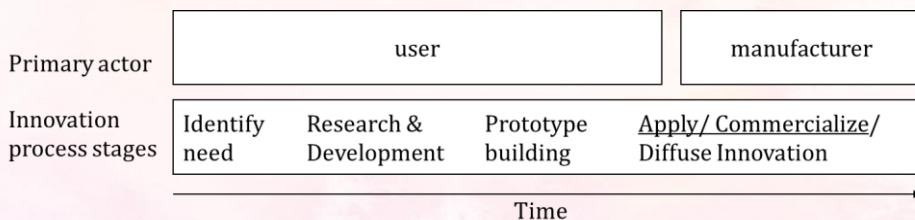


Figure 8. Lead User Innovation Process

To develop innovations that meet users' needs, need information should be accurately collected and translated. von Hippel argued that this is often not the case, owing to sticky information, resulting in a mismatch between need information and solution possibilities, driving users to innovate (von Hippel, 1994, 1998). Factors that contribute to stickiness are when users' knowledge is tacit (Bogers et al., 2010) and when their needs are local (Haefliger et al., 2010; Lüthje et al., 2005). Sticky information results in information asymmetries, personal unmet needs, and dissatisfaction.

2.3.1.1 Personal Unmet Needs

Implied in von Hippel's definition is the personal unmet need component, which serves as an incentive to a user to develop or adjust the product or service they need. Having a personal unmet need is a key trigger to becoming a lead user. von Hippel (2005) showed that 84.5% of his sample respondents indicated that their need information came from personal experience, making it an important antecedent to becoming a lead user. Designing for personal use and testing the developed innovation are key characteristics of user-innovators (Baldwin et al., 2006). To date, this aspect of the lead user innovation literature has been used

only as an implicit part of the lead user construct. Since we expect it to be an important trigger in this process, especially in the social domain, we singled it out.

2.3.1.2 Ahead of Trend

Being ahead of the marketplace refers to lead users experiencing needs that later become general in the (mass) market. This can manifest in experiencing needs ahead of others or in a proposed solution's novelty (Franke and Shah 2003). Overall, lead users are cutting-edge and pioneers. Being ahead of a trend relates to an innovation's commercial attractiveness (Franke and Shah, 2006).

2.3.1.3 High Expected Benefits

When a solution helps to solve a need that is important to a user, it is more likely that this user will innovate to try to find a solution (Franke et al., 2006; Lüthje, 2004; von Hippel, 1988). Often, the higher the innovation-related benefits, the higher the dissatisfaction with the current situation (Bogers et al., 2010). Dissatisfaction is key and triggers action (Franke et al., 2006). Market and governmental failures combined with personal experience often result in high problem pressure to solve an unmet need. High problem pressure is seen as a driving force to develop new ideas (Lettl, 2005). Other expected benefits are when they like to solve problems and find enjoyment in the problem-solving process (Bogers et al., 2010; Lüthje et al., 2005).

2.3.1.4 Use Expertise and Product-related Knowledge

Having a personal unmet need and lead user characteristics are insufficient to innovate. A user's skills levels, combined with personal experience and technical knowledge, also influence the innovation likelihood (Lüthje et al., 2005; Schreier & Prügl, 2008). User-innovators are use experts and have the product-related knowledge needed to innovate. Use experience is derived from frequent use of products or services, while product-related knowledge entails knowledge about the technologies and materials used in the market (Luthje 2004). Experience also reduces the innovation-related costs and lowers the barriers to innovate (Baldwin et al., 2006; Lüthje et al., 2005). The levels of skills and education, combined with personal experience and the technical knowledge, positively influence the decision to innovate (de Jong, 2010; Lüthje et al., 2005; Schreier & Prügl, 2008). Users' unique knowledge and skills lead them to develop solutions that are personalized to their needs (Bogers et al., 2010). The combination of

their unique needs and their specific capabilities gives users a good sense of market demands, which – in turn – favors the opportunity recognition process and the business development process (Shah and Tripsas, 2007). Likewise, users are highly committed to the product field (Lüthje, 2004).

2.3.1.5 Community

Users often innovate within a community of users that complements their resources and knowledge. Community membership positively contributes to the probability that users will innovate (Franke & Shah, 2003; Lüthje et al., 2005). A community of other users provides valuable need information and helps to diffuse an innovation (Franke & Shah, 2003; Jeppensen & Frederiksen, 2006; Lüthje, 2004; Shah & Mody, 2011). Interaction with a user community can enhance the likelihood that a user will innovate (Baldwin et al., 2006; Jeppensen & Frederiksen, 2006). Community interaction can be in the form of freely sharing information, receiving assistance, or spending time spent the community (Franke & Shah, 2003). When a solution is developed, a user community can function as a platform to test the innovation and can help with feedback. This feedback provides critical information about the preferences of other users, which can spur the commercialization process (Franke & Shah, 2003; Shah & Tripsas, 2007). Feedback from a user community can also provide a sense of market demand and can increase the market's size (Shah & Mody, 2011).

2.3.1.6 Industry Conditions

Most research into users' innovating behaviors has focused on niches, where expert users experimented with new developed solutions (Franke et al., 2006; Jeppensen & Frederiksen, 2006; Lüthje et al., 2005). The markets in which users innovate are often small and uncertain (Franke et al., 2006). It is in these markets that (lead) user-innovators have advantages, since they are in the early stages of an industry's development and lifecycle and there is therefore much potential for growth (de Jong, 2010). According to Raasch et al. (2008), user innovation is most likely to happen when a technology is neither complex nor mature and when there is less demand for standardization from customers.

2.3.1.7 Barriers to Innovation

Innovation likelihood relates to the barriers to innovation. Braun and Herstatt (2007, p. 294) described four such barriers. There are *legal* barriers that need to be considered, such as IP rights and difficulties obtaining protection. *Economic*

barriers include market concentration, and difficulties competing against established firms also reduce the likelihood of users innovating. *Technological* barriers refer to increased technological maturity and complexity, which require more knowledge and access to equipment to innovate. *Social* barriers indicate negative reactions toward users modifying existing products. Thus, user innovation is most likely when there is room to innovate. This means an environment in which a user wants to innovate and is provided with this possibility based on the aforementioned factors. Commercialization of an innovation is more likely when there is need heterogeneity, when there are small-scale niche markets, or in nascent markets (Shah & Tripsas, 2007, p. 134).

2.3.2 User Entrepreneurship

von Hippel's work and the research into user innovation was initially based on the idea that users need information – whether about new applications, products, or problem solutions – should be incorporated into established firms. Thus, the research has focused on how to identify, select, and transfer need information. It was long assumed that the commercialization of innovations by users was not a viable option, because their motivations to innovate were primarily based on use, and that established manufacturers would have economic advantages, such as the control over complementary assets, which would make it very hard for users to commercialize their innovations (Bogers et al., 2010; Hienerth, 2006; Shah & Tripsas, 2012; Von Hippel, 1986, 1988). A lack of expectation to financially benefit from an innovation has contributed to users often freely sharing information about their innovations with community members or manufacturers (von Hippel, 1988, 2001). Another assumption was that, to protect an innovation, users needed IP protection, which was considered too costly (Bogers et al., 2010). However, users are not only a very valuable forecasting laboratory; in some conditions, they commercialize their innovations themselves, change existing industries, or even create new industries (Baldwin et al., 2006; Haefliger et al., 2010; Shah, 2000; Shah & Tripsas, 2007).

User entrepreneurship is the “*commercialization of a new product and/or service by an individual or group of individuals who are also users of that product and/or service.*” (Shah & Tripsas, 2007, p. 124). User entrepreneurship builds on the user innovation literature, and the same characteristics and conditions apply in this process. To be a user entrepreneur, an individual is often a (lead) user-innovator (Baldwin et al., 2006; Frederiksen et al., 2008; Hamdi-Kidar & Vellera, 2012; Yu & Ogawa, 2012). However, some defining elements in this process must be mentioned. Users' unique use-related knowledge contributes to the

identification of opportunities and a sense of market demand (Shah and Tripsas, 2007). Owing to the information's stickiness, informational asymmetries arise that are advantageous to a user (Shah, 2000; Shah and Tripsas, 2007).

There is empirical evidence of a positive relationship between user-innovators and their entrepreneurial attitudes, perceptions, intentions, behaviors, and aspirations (de Jong, 2010). Further, lead users have entrepreneurial intent (Lettl, 2005). Frederiksen et al. (2008) also linked lead user status to entrepreneurial intent and indicated that, owing to lead users' personal experience, they can better see an innovation's value creating potential. Their specialized product knowledge can propel ventures started by users and can effectively combat survival challenges during early stages. de Jong (2010) found a positive relationship between user-innovators and their entrepreneurial attitudes, perceptions, intentions, behaviors, and aspirations. What makes users different is their motivations to start innovating. User entrepreneurs have been referred to as needs-driven entrepreneurs, as opposed to their technology-driven counterparts (Lettl, 2005), or as utility maximizers (Shah & Tripsas, 2007). Exemplary of the user entrepreneurship process is that innovation, the building of a prototype, and the testing of it occur before an opportunity to commercialize the innovation is identified, and that this process occurs in close collaboration with a user community (Baldwin et al., 2006; Hienerth, 2006; Shah, 2000; Shah & Tripsas, 2007, 2012).

2.3.3 Social Entrepreneurship

Social entrepreneurship is a deviation from 'traditional' entrepreneurship (Dees, 1998). Before describing social entrepreneurship in depth, we will first describe entrepreneurship generally. Entrepreneurship has been defined as "*the discovery and exploitation of opportunities [...] opportunities are those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production*" (Shane & Venkataraman, 2000, p. 217;220). In turn, Bacq et al. (2011, p. 6) defined entrepreneurship as "*as the identification and recognition of opportunities, the will to innovate, to take risks and to have a proactive attitude towards growth, survival and serving the market.*" In both definitions, innovation, growth, and surplus are defining elements of entrepreneurship. There are different opinions as to whether these opportunities are discovered, or whether they are created (Alvarez & Barney, 2007); or whether they build on effectuation or causation (Sarasvathy, 2001). A key part of entrepreneurship is an opportunity and its

exploitation. Unsurprisingly, there is a link between innovation and entrepreneurship – both aim to create value. Innovation seeks to create new products, processes, and services, while entrepreneurship seeks to recognize opportunities for such innovations and by realizing or exploiting them via organizing the resources to make a product or service available to the market. Together, innovation and entrepreneurship create value (Mitra, 2012). Innovation is often regarded as a fundamental element of entrepreneurship (Drucker, 1985; Kirzner, 1978; Schumpeter, 1934). The recognition of opportunities are at the basis of both innovation and entrepreneurship (Mitra, 2012). Through innovation, established firms can attain or retain competitive advantages, and new firms can be formed. The OECD (2013, p. 12) has provided a broader definition of entrepreneurship, which opens the door to alternative ways of value creation that deviate from the economic rationale:

"[Entrepreneurship is] The phenomenon associated with entrepreneurial activity, which is the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. In this sense, entrepreneurship is a phenomenon that manifests itself throughout the economy and in many different forms with many different outcomes, and these outcomes are not always related to the creation of financial wealth; for example, they may be related to increasing employment, tackling inequalities, or indeed, increasingly, environmental issues."

Where value creation is considered a key function of entrepreneurship, this does not necessarily mean that its main purpose is to create profit. Social entrepreneurship focuses primarily on the creation of social value (Austin et al., 2006; Mair & Marti, 2006). However, there are many viewpoints on social entrepreneurship. Scholars have dedicated much time to defining the social entrepreneurship concept, establishing its theoretical boundaries, and finding agreement on its core construct; nonetheless, it remains ambiguous (Dacin et al., 2011; Hoogendoorn, Pennings, & Thurik, 2010; Kraus, Niemand, et al., 2017; Lee, Battilana, & Wang, 2014; Saebi et al., 2019; Short et al., 2009). There are various schools of thought regarding social entrepreneurship.

2.3.3.1 Defining Social Entrepreneurship

We define social entrepreneurship as entrepreneurial activities that address societal pains and enhance social wealth for their customers (Lepoutre et al., 2013; Zahra et al., 2009). Social entrepreneurs act as innovative social change

agents and are important in fulfilling unmet social needs on a broad scale (Dees, 1998; Thompson, 2002; Yitshaki & Kropp, 2016). Social entrepreneurs are often active in the environmental and the public domains (Lepoutre et al., 2013; Short et al., 2009). Social entrepreneurs create social value and impacts, and are often active in domains characterized by market and governmental failures (Austin et al., 2006; Defourny & Nyssens, 2010; Miller et al., 2012). Because social entrepreneurs address social pains, it is expected that they have more prominent positions in areas in which these social pains are more severe (Lepoutre et al., 2013). In these situations, ventures aiming to alleviate poverty, reduce inequalities, or create jobs create immense social value. Thus, social entrepreneurs have roles in improving communities, in helping to reduce inequalities (Weerawardena & Mort, 2006), and in diminishing deprivation (Austin et al., 2006; Lumpkin et al., 2013; Thompson, 2002).

There is a difference between the social entrepreneur and the social business⁸ they establish. "A social business is any business venture created for a social purpose– mitigating/reducing a social problem or a market failure–and to generate social value while operating with the financial discipline, innovation and determination of a private sector business. [...] In its widespread usage, "social entrepreneur" is the individual and "social enterprise" is the organization." (Alter, 2007, p. 12). The difference between the enterprise and the individual result in different research focuses. The research on social enterprises emphasizes the purpose of the social initiative. The research the social entrepreneur stresses the processes underlying the innovative and entrepreneurial activity for social purposes (Luke and Chu 2013). Since social entrepreneurs use market-based approaches to create social value, resulting in the combination of social and economic missions (Austin et al., 2006; Mair & Marti, 2006). Because they have a dual mission, social enterprises are often considered as hybrid organizations (Battilana & Lee, 2014; Miller et al., 2012). The research often addresses social enterprises' hybridity and the diverse ways to manifest a dual mission (Battilana et al., 2012; Doherty et al., 2014).

⁸ Business, venture and enterprise are sometimes used interchangeably in this dissertation. An enterprise is any entity engaged in an economic activity, irrespective of its legal form (Bacq and Janssen, (2011, p. 385) see also European Commission, (2003a).

2.3.3.2 Characterizing Elements of Social Entrepreneurs

Social entrepreneurs are in business first to create social value or impact. Their commercial mission is often a way to sustain their social mission. Thus, social value creation and social mission are distinguishing elements of social entrepreneurs (Austin et al., 2006; Bacq et al., 2011; Mair & Marti, 2006). However, the difficulty with social value creation is that it is hard to determine precisely, because it is context-dependent, with a focus on local circumstances and local individuals; above all, it is subjective (Young, 2006). Other-regarding values instead of self-regarding values are a distinguishing element of social entrepreneurs (Santos, 2012; Thompson, 2002). According to Haugh (2007, p. 743), social entrepreneurship is foremost a practical response to unmet individual and societal needs. Thus, unmet social needs are the core of social entrepreneurship (Weerawardena & Mort, 2006; Zahra et al., 2009); other factors are social innovation, sustainability, and having a social vision (Nga & Shamuganathan, 2010).

Social entrepreneurs often develop innovative solutions to unmet social needs and are therefore referred to as pioneers (Dees, 1998; Thompson, 2002). In the broadest sense, social innovation has been defined as “a novel solution to a social problem that is more effective, efficient, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals.” (Phills, Deiglmeier, & Miller, 2008, p. 39). Inspiration, creativity, direct action, courage, and fortitude are key elements of the innovation process (Martin & Osberg, 2007, p. 33). This indicates that personality and experience are important influencers of innovation and social entrepreneurship.

Social entrepreneurs have the leadership skills to make their vision work, with a focus on the long-term perspective (Thompson et al., 2000). Their previous experience and skills contribute to their venture success (Austin, 2006). Specifically, the literature indicates that social entrepreneurs have personal credibility, integrity, and the ability to generate commitment by framing important social values (Weerawardena & Mort, 2006, p. 22). They also inspire, marshal, and mobilize the efforts of commercial and non-commercial partners, donors, volunteers, and employees in the pursuit of social wealth (Zahra et al., 2009, p. 523). Another factor is that social entrepreneurs are able to recognize social opportunities (Bacq & Janssen, 2011; Martin & Osberg, 2007).

Social entrepreneurs act despite resource limitations (Austin et al., 2006; Dees, 1998; Lumpkin et al., 2013; Peredo & McLean, 2006). Dees (1998) argued that they do not let their limited resources keep them from pursuing their vision. Social capital is key in social entrepreneurship (Mair & Marti, 2006; Thompson et al., 2000); it helps to reduce resource scarcity by using networks to achieve objectives (Austin et al., 2006). Empathy and compassion help to explain social entrepreneurs' social entrepreneurial orientations (Bacq & Alt, 2018; Dees, 1998; Hockerts, 2017; Miller et al., 2012).

2.3.3.3 Prosocial Orientations

Motivations are crucial to turn entrepreneurial intention into action (Yitshaki & Kropp, 2016, p. 546), and the founder's personal motivations help to elucidate the value the organization creates (Bacq & Janssen, 2011). Prosocial motivation "is the desire to protect and promote the well-being of others and it is distinct from altruism and independent of self-interested motivations" (Grant & Berg, 2012, p. 28). Prosocial orientations help to explain why individuals start a business to create social value. Relatedly, the motivation to help others (other-regarding values) instead of self-interest (self-regarding values), contributes to social value creation as well (Miller et al., 2012). Individuals are motivated to become social entrepreneurs to help others because they care for them, they feel that it is the right thing to do, and when they want to belong to a group they deem important, or that this will result in the individual feeling good about themselves (Renko, 2013). Several factors contribute to nascent entrepreneurs' prosocial orientation and can even trigger their opportunity recognition. Experiencing a psychological threat, altruism, sympathy, empathy, and compassion often trigger a prosocial orientation (Bacq & Alt, 2018; Miller et al., 2012; Shepherd & Patzelt, 2018).

Empathy's influences on social entrepreneurship, social entrepreneurial motivations, and startup intentions have been studied by Bacq and Alt (2018) as well as Dees (1998). Empathy influences how people respond to others' experiences, which influences their social entrepreneurial feelings, self-efficacy, and social worth (Bacq & Alt, 2018). This is consistent with Miller et al. (2012, p. 620), who argued that social entrepreneurs start their businesses based on compassion for others. Specifically, the authors maintain that compassion acts as a motivator of cognitive and affective processes, which increase integrative thinking and prosocial judgments of the costs and benefits related to social entrepreneurship and foster the commitment to alleviate others' suffering. The

combination of compassion and empathy result in social entrepreneurs feeling compelled to give back to society and to assuage social pains. Likewise, social entrepreneurs relate to a social problem because they have experienced its difficulties or know others who have (Belz & Binder, 2017; Yitshaki & Kropp, 2016).

Germak and Robinson (2014) found that personal fulfillment, helping society, having a non-monetary focus, achievement orientation, and closeness to a social problem increase social entrepreneurial orientation. The founder's personal motivations are often key in establishing an organization and in determining the social value it creates (Bacq & Janssen, 2011; Short et al., 2009). For instance, previous experience with social problems increases social entrepreneurial intent (Hockerts, 2017). Knowledge corridors, such as life experiences, help shape social entrepreneurs' opportunity recognition processes (Corner & Ho, 2010). However, the research into the drivers of prosocial entrepreneurial behaviors has received very little attention (Bacq & Alt, 2018; Germak & Robinson, 2014; Miller et al., 2012; Renko, 2013).

2.3.4 Sources of Lead User Innovation and Social Entrepreneurship

Insights from theory on market failures (Bator, 1958; Dean & McMullen, 2007) and governmental failures (Salamon & Anheier, 1998; Weisbrod, 1977; Wolf, 1979) help to explain the some sources of unmet needs, and thus of lead user innovation and social entrepreneurship. Market failures occur when markets allocate resources inefficiently, leaving a gap between demand and supply (Alvarez, Barney, & Newman, 2015; Bator, 1958). While governments remain the most important actor to ensure societal wealth, owing to budget cuts, other organizations are taking over (Thompson et al., 2000). Governmental failures occur when government's interventions in the economy or to correct market failures are unsuccessful and result in inefficient and/or exclusive allocations of resources (Le Grand, 1991; Wolf, 1979). Research has found that market and governmental failures are at the forefront of opportunity recognition in social entrepreneurship (Alter, 2007; Austin et al., 2006a; Defourny & Nyssens, 2010; Santos, 2012; Seelos & Mair, 2005; Thompson et al., 2000) and trigger user innovation (von Hippel, 2005). Thompson et al. (2000, p. 328) found "that social entrepreneurs identify opportunities to satisfy unmet need that the state welfare system will not or cannot meet". Likewise, Lepoutre et al (2013 p.695) argue social entrepreneurship is an activity that by definition addresses social pains that are not adequately resolved by the state, civil society, or the market. These

failures result in citizens feeling forced to take matters into their own hands concerning securing their social wealth (Schulz & Steen, 2013). Likewise, being a lead user, combined with dissatisfaction with current offerings and certain market characteristics, can trigger the user innovation process (Baldwin et al., 2006; Lüthje, 2004; Shah & Tripsas, 2007). Based on these theoretical constructs, we mapped the lead user-based social entrepreneurial process as follows:

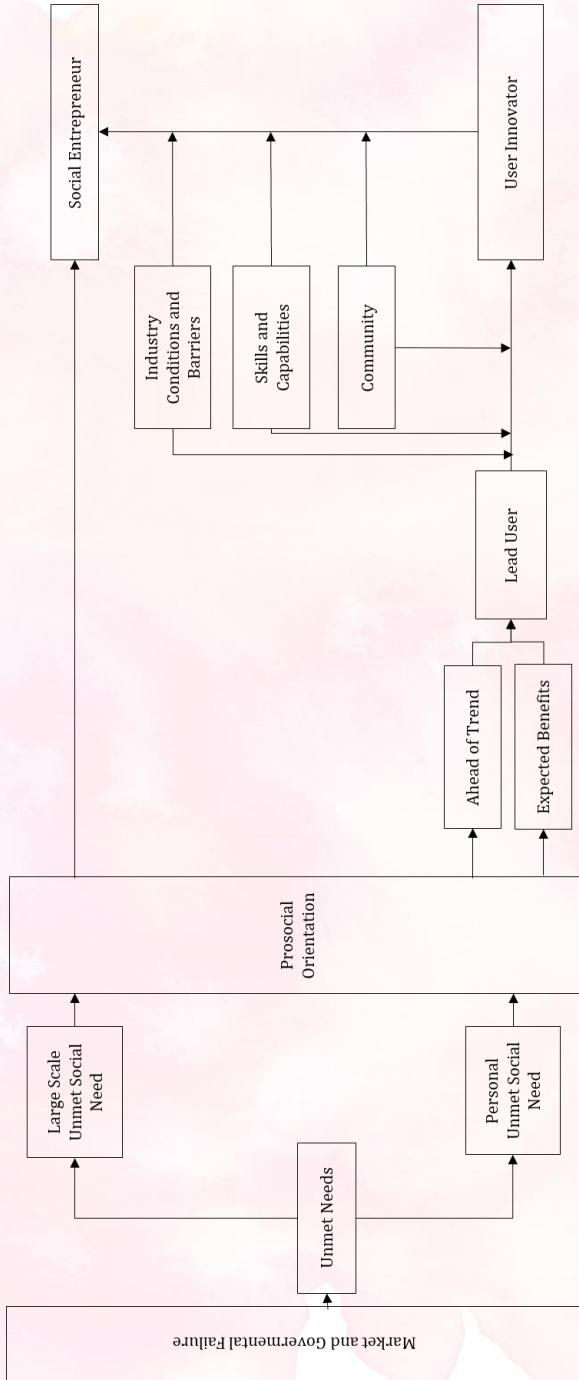


Figure 9. Conceptual Model Dissertation

2.4. Discussion and Conclusion

We set out to establish the theoretical basis for studying lead user-based social entrepreneurship and to demonstrate how the literature streams on lead user innovation, user entrepreneurship, and social entrepreneurship interrelate. Lead user-based social entrepreneurship entails the commercialization of products and services by (lead) user-innovators who address societal pains and create social wealth. Based on our systematic literature review, we found the distinguishing elements of the lead user innovation, user entrepreneurship, and social entrepreneurship literatures. User-innovators or lead users create solutions based on their personal unmet needs derived from using a product or service, and they also commercialize these solutions (Baldwin et al., 2006; Chandra & Leenders, 2012; Gobble, 2013; Haefliger et al., 2010; Hamdi-Kidar & Vellera, 2012). User-innovators' contributions range from incremental innovations to the development of radical innovations and new industries (Baldwin et al., 2006; Shah & Mody, 2011; Shah & Tripsas, 2012). Because users have use experience and product-related knowledge, they can better see an innovation's value creation potential than established manufacturers (Frederiksen et al., 2008). Lead user characteristics and sticky information result in a user with informational advantages to identify opportunities that others – such as established manufacturers – miss (Shah & Tripsas, 2007). We argue that owing to their unique characteristics, lead user-innovators may be better suited to overcome unmet needs in the social domain.

We found several commonalities and linkages that indicate that users may also be active in the social domain and that establish a theoretical basis for examining lead user-based social entrepreneurship. Central in both literature streams are market and governmental failures, which cause personal unmet social needs, on which end-users act when they are recognized (Santos, 2012; von Hippel, 2005). These failure types also influence the market characteristics in which innovations and businesses are developed and result in specific barriers that need to be considered (Braun & Herstatt, 2007). Innovation is a key component of both lead users and social entrepreneurs; both have innovation as a requisite to create solutions to unmet needs. Social entrepreneurs develop innovative solutions to unmet social problems (Dees, 1998; Thompson, 2002). Whereas the user innovates to develop solution to an in-house or personal need (von Hippel, 2005). Another commonality is that both user-innovators and social entrepreneurs seek to enhance communities and use and tacit knowledge (Lüthje et al., 2005; Zahra et al., 2009). User-innovators and social entrepreneurs

are highly committed to their product fields and feel a desire to solve unmet needs (Lüthje et al., 2005; Thompson, 2002). Both user-innovators and social entrepreneurs have in-depth systems of use information and are personally motivated to solve the cause they hold dear. This can relate to the influences of sticky information, product-related knowledge, and use expertise, which lead to informational advantages (Lüthje, 2004). Sticky information makes it harder to transfer need information (von Hippel, 1994, 1998). This may be especially difficult in the social domain, where established manufacturers often fail to see the merits of serving small consumer populations. Concerning the use of local, tacit knowledge, a social bricoleur – as described by Zahra et al. (2009) – uses this knowledge type to discover opportunities and is able to do so owing to information asymmetries. Lüthje et al. (2005) described local information's importance with regard to user innovation as weak. Both lead user-innovators and social entrepreneurs are driven by non-financial motives for developing solutions, while overcoming resource scarcity in the innovation process and in the commercialization process (Austin et al., 2006; Shah & Tripsas, 2007). Based on this, we developed a conceptual model that can be used in future research.

This study focuses on lead user-based social entrepreneurship and did not include other forms of (social) entrepreneurship. Likewise, we focus on market and governmental failures as causes for personal unmet needs that trigger lead user-based social entrepreneurship. There are other causes to social entrepreneurship and lead user innovation, that we did not include, which can be regarded as a limitation. One limiting effect on our findings is the use of the search entries in the data selection that result from our research objective. It could be that by using other words, other articles may have surfaced that were more useful for this literature review. There might, therefore, be a researcher biases because of the subjective nature of selection of the articles. Relatedly, citation bias could have occurred which may have influenced the selection of articles (Christensen-Szalanski & Beach, 1984). By using the technique of Wolfswinkel et al. (2013) we tried to prevent this bias. The accuracy of our model, as well as the included variables and the relationships between them, should be examined by future research.

Following Whetten (1989), our systematic literature review has contributed to a better understanding of the *what* – the factors (variables, constructs, concepts) that should be considered to explain a social phenomenon of interest (p. 490). Also, we made a first attempt to address the *how* by connecting and/or interrelating the factors, developing a conceptual model that can be empirically

tested in future research. The next chapter should provide a basis to accomplish this. Our research provides interesting avenues for research that contributes to a deeper understanding of lead user-based social innovation and social innovation by lead users in social contexts characterized by unmet needs. The social entrepreneurship literature lacks in three levels of analysis: the individual, the organizational, and the institutional (Saebi et al., 2019). Our research has shed light on the individual aspects of starting a social venture by incorporating insights from the lead user and the user entrepreneurship literatures. Further, research is needed that addresses social entrepreneurs' motivations in starting their business (Yitshaki & Kropp, 2016). By incorporating insights from the lead user literature, we have responded to this call. There is a need to understand how contexts shape social entrepreneurs' opportunity recognition processes and the entrepreneurial processes, and which elements foster innovation (Austin et al., 2006; Short et al., 2009). Using the literature on innovating (lead) users helps one to understand the various sources of innovative solutions developed and implemented by social entrepreneurs. This will lead to a better understanding of the innovativeness levels and the antecedents of starting a social venture. We have responded to the call for more insights into the links between social innovation and social entrepreneurship (Phillips et al., 2015) as well as the call for more knowledge on the antecedents of starting a social business (Short et al., 2009). Since lead users start innovating to develop solutions for their unmet needs, which form the basis for further opportunity development and application in the social domain on a broader scale (Shah & Tripsas, 2007), the insights from the lead user innovation literature are a good basis for understanding how social entrepreneurs recognize opportunities, and whether and how this process differs from those of other entrepreneur types (Robinson, 2006). Likewise, incorporating the insights from the lead user innovation literature into the social domain help one to better understand both the foundation and the emergence of the social sector (Shah & Tripsas, 2007).



Chapter 3: From Lead User-innovator to Social Entrepreneur: An Illustrative Case Study⁹

Summary

In this cross case study, we examine whether the theoretical building blocks that we found in the previous chapter also exists in reality. In doing so lay the groundwork for studying lead user-based social entrepreneurship on a broader scale. We base our research on three example cases that involve two consumer innovators who have started a social venture and one who has commercialized their innovation by licensing it. A common thread that connects these cases, beyond the experience of an extreme life event, is that they found innovative solutions to overcome personal challenges. They also launched a new venture to help others who face the same needs. The social problems addressed by these entrepreneurs are part of their life experiences. Since it is their personal experience to develop a solution to their unmet needs that helped them develop a product to be sold in the underserved market, we can call these social entrepreneurs *lead user-innovators*. These individuals' motivations go beyond selling a product; they seek to effect social change. Investigating these cases in depth will enable us to extract the characterizing elements in the lead user process in the social domain. These cases illustrate is that if solution knowledge is sticky, market failure can serve as a proxy for user innovation. These insights are very valuable for supporting nascent entrepreneurs who wish to start a business based on their experiences, as they provide relevant information on how to stimulate and facilitate these individuals.

Keywords: (lead) user innovation, user-innovator, social entrepreneurship, lead user based social entrepreneurship

3.1 Introduction

We study lead user-based social entrepreneurship by examining three illustrative cases in which lead users developed and commercialized solutions social that have created social value. Innovating users can be professional or private end-users or intermediate users who are the first to develop an

⁹ Previous versions of this chapter was presented 2014 11th Annual Social Entrepreneurship Conference, November 5-7, in Boston and the 2017 High Tech Small Firm Conference, July, in Amsterdam

innovation to a functional state without the assistance of producers and who expect to benefit from using the innovated product or service themselves (Von Hippel, 1986, 1988, 2005). Users who engage in the innovation process are often lead users, indicating that they are ahead of a trend and have high expectations of the developed solutions (Von Hippel, 1986, 1988). Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance their customers' social wealth by creating social value (Lepoutre et al., 2013; Zahra et al., 2009). Social entrepreneurs operate in areas characterized by societal pains and solve social unmet needs in innovative ways (Lepoutre et al., 2013; Short et al., 2009). Lead user innovation has been researched in various domains and has gained legitimacy over the years by solving personal unmet needs in highly innovative ways (Bogers et al., 2010). While both fields are gaining increasing academic interest in the entrepreneurship and innovation literatures, few studies have focused on the overlap between these fields, specifically how personal unmet needs influence social innovation and social venture creation.

Both social entrepreneurship and lead user innovation are a response to unmet individual and/or societal needs that can be related to market and governmental failures (Santos, 2012; von Hippel, 2005). Social entrepreneurs address underserved markets and niches (Lepoutre et al., 2013), while user innovation often occurs in small and uncertain markets characterized by rapid changes, which established manufacturers often consider to be unattractive markets (Baldwin et al., 2006; Shah & Tripsas, 2007). Both lead user-innovators and social entrepreneurs are often driven by non-monetary motives for developing solutions, while overcoming resource scarcity in the innovation process and the commercialization process (Franke & Shah, 2003; Lumpkin et al., 2013; Lüthje et al., 2005; OECD, 2013; Shah & Tripsas, 2007; Short et al., 2009). Further, community enhancement has a key role (Franke & Shah, 2003; Haugh, 2007; Shah & Tripsas, 2007; Short et al., 2009). These linkages provide an indication that lead user-innovators may be active in the social domain, however research into this phenomenon is scarce. Shah and Tripsas (2007) illustrated that consumers have had roles in the establishment of social service organizations such as the AA, and believe that this is a fruitful area for future research. Likewise, there is evidence that end-users operate in the sustainable energy field (Hyysalo et al., 2013; Ornetzeder & Rohracher, 2006). Recent research has covered patients-as-innovators, who have created and commercialized products and services that have had immense social value and that have overcome market and governmental failures (Conway & Steward, 2009; Oliveira et al., 2015; Wood

et al., 2013). Based on these synergies, it seems that investigating lead user-based social entrepreneurship provides interesting avenues for conducting research and better understanding end-users' social value creation processes.

User-innovators who become social entrepreneurs present an interesting class of entrepreneurs that enhances our understanding of social venture building. Knowledge about a specific context is often essential for developing novel solutions that meet social needs. Scholars have called for a detailed focus on the antecedents of social entrepreneurship activities (Short et al., 2009). To better understand social entrepreneurs' opportunity recognition processes and venture building processes, we used insights from the lead user innovation literature (Von Hippel, 1986, 2005), and scholars who have studied lead user-innovators who have enacted their entrepreneurial intent (Baldwin et al., 2006; Bogers et al., 2010; Shah & Tripsas, 2007). Social entrepreneurship can benefit from unique insights from the literature on lead user innovation, which has investigated the nature of innovation and the extent of innovativeness in the customer-oriented paradigm (Shah & Tripsas, 2007; von Hippel, 1978). Local knowledge about a specific context is often essential for developing novel innovations to overcome unmet needs (Lüthje et al., 2005), and lead users particularly possess such knowledge. However, the theories on entrepreneurial lead user-innovators and social entrepreneurship are both fairly young, and many areas have not yet been explored (Bogers et al., 2010; Lepoutre et al., 2013; Short et al., 2009). This makes it hard to investigate a theory's boundaries and provides interesting avenues for groundbreaking research (Bacq & Janssen, 2011; Mair & Marti, 2006; Yu & Ogawa, 2012). By incorporating insights from the lead user literature, we shed light on the drivers of highly innovative individuals who potentially develop solutions that create social value. These insights enable us to better understand social entrepreneurs' innovative processes and will enhance methods to stimulate social innovation and entrepreneurship.

We find that lead users develop and commercialize innovations that create social value, which result in the development of novel approaches to fulfill unmet social needs. We demonstrate that user-innovators, owing to their specialized product knowledge, use informational asymmetries to their advantage to help develop highly innovative solutions. This gives lead user-innovators advantageous positions in overcoming market and governmental failures, compared to established manufacturers, which did not value these solutions at all. This research adds to the growing literature based on user-innovators as social entrepreneurs and sets the stage to further investigate lead user-based social

entrepreneurship. Lead user-based social entrepreneurship can be instrumental in overcoming market and governmental failures in upcoming, unserved, or underserved markets. Investigating these cases in depth will enable us to extract the characterizing elements in the lead user process in the social domain. Since these insights are very valuable for supporting nascent entrepreneurs who wish to start a business based on their own experiences, they provide relevant information on how to stimulate and facilitate these individuals.

3.2 Theoretical Background

3.2.1 Lead user innovators

According to Von Hippel (1986, 1988, 2005), it is not established manufacturers but lead users who are often the source of many innovations. Lead user-innovators are individual users, professional intermediate users, or end-users who are the first to develop an innovation to a functional state without the help of producers and who expect to benefit themselves from using the innovated product or service (von Hippel, 1988, 2005). To be classified as a lead user, a user needs to be ahead of a market trend and must expect to benefit significantly from developing a solution (von Hippel, 1988, 2005). Lead users start to innovate based on a personal unmet need they want to overcome and for which an existing or sufficient alternative is lacking (von Hippel, 2005). The innovations developed by users are for personal or professional (in-house) use, or for family or community members they are close to. A user's education and skills levels, combined with personal experience and technical knowledge, also influence the innovation likelihood (Lüthje et al., 2005; Schreier & Prügl, 2008). User-innovators are use experts and have the product-related knowledge needed to innovate (Lüthje, 2004). Because of their use-related knowledge, they experience that the current market offerings do not meet their needs, or feel dissatisfied before others (Faullant et al., 2012; Raasch et al., 2008). Dissatisfaction is a key element that drives users to innovate. Likewise, designing for use and testing for use are key elements of the user innovation process (Baldwin et al., 2006).

User innovation does not happen in isolation, and a community of like-minded serves as viable input in the development of an innovation by freely sharing information about this innovation (Franke & Shah, 2003; Raasch et al., 2008). These communities also provide a sense of market demand (Shah & Tripsas, 2007). Lead user-innovators' contributions have ranged from incremental

innovations to the development of radical innovations and industries (Baldwin et al., 2006; Shah & Mody, 2011; Shah & Tripsas, 2012). Initially, the research found that user innovation often occurs in small and uncertain markets characterized by rapid changes, which are often unattractive markets for established manufacturers (Baldwin et al., 2006; Shah & Tripsas, 2007). However, more recent work has found that users also innovate in the household sector (Flowers et al., 2012).

Market and governmental failures as well as *sticky* information are considered reasons why user innovation happens (von Hippel, 1994, 2005). Market failures occur when the supplies of the market do not meet users' needs or when there are imperfections (Alvarez et al., 2015; Bator, 1958), whereas governmental failures occur when governments' interventions in the economy or attempts to correct market failures are unsuccessful and result in inefficient and/or exclusive allocations of resources (Le Grand, 1991; Wolf, 1979). A key trigger of user innovation is that users' needs are often interpreted or translated inaccurately. Users often hold need information, whereas a manufacturer holds solution information, and users find it hard to transfer need knowledge to a manufacturer, which makes it hard to translate needs into adequate new offerings (von Hippel, 1994, 1998). Sticky information is often costly to use, transfer, and collect owing to the information itself or owing to the attributes that relate to the information (Von Hippel, 1994). These gaps create room for users to innovate (de Jong, 2010). Factors that contribute to stickiness are when users' knowledge is tacit (Bogers et al., 2010) and when their needs are local (Haefliger et al., 2010; Lüthje et al., 2005).

Users go beyond innovating, and also commercialize their solutions (Baldwin et al., 2006; Chandra & Leenders, 2012; Gobble, 2013; Haefliger et al., 2010; Hamdi-Kidar & Vellera, 2012). User entrepreneurship is a derivative of the literature on innovating lead users (Jones-Evans, 1995; Shah & Tripsas, 2007). The empirical evidence has highlighted a positive relationship between user-innovators and their entrepreneurial attitudes, perceptions, intentions, behaviors, and aspirations (de Jong, 2010). It has also been found that lead users have entrepreneurial intent (Lettl, 2005). Because lead user-innovators have personal use experience and product-related knowledge, they can better see an innovation's value creation potential than established manufacturers (Franke et al., 2006; Frederiksen et al., 2008; Von Hippel, 1986). Their specialized product knowledge can propel the ventures started by lead users to remain at the leading-edge of innovation and can effectively combat survival challenges in

early stages. Thus, (lead) user-innovators not only also become entrepreneurs, in some instances they are better suited to enter the market than established manufacturers (Shah & Tripsas, 2012). However, user innovation and entrepreneurship as research fields lack unified definitions (Yu & Ogawa, 2012), and need more research to establish these domains' boundaries, especially relating to the non-profit domain (Shah & Tripsas, 2007).

3.2.2 Social Entrepreneurship

Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth (Lepoutre et al., 2013; Zahra et al., 2009). Central to social entrepreneurship is a social mission, which seeks to create social value, and innovation's role in this process (Bacq & Janssen, 2011; Short et al., 2009). Social entrepreneurs are community-focused, since they have a crucial role in improving communities and reducing inequalities (Austin et al., 2006; Lumpkin et al., 2013; Thompson, 2002; Weerawardena & Mort, 2006). Social value creation is a key characterizing component social entrepreneurs seek to achieve in overcoming social problems that are urgent, reasonable, and unmet (Lepoutre et al., 2013; Young, 2006). Social value creation is targeted in initiatives that seek to empower individuals, aim at sustainable solutions, and seek to bring about systemic change. Value is often created for the public good, and this occurs in the not-for-profit organizational domains, where market and governmental failures' influences are stronger (Austin et al., 2006; Mair & Marti, 2006). Thus, market and governmental failures drive the social opportunity recognition process (Santos, 2012).

Unmet social needs are the core of a recognized opportunity (Weerawardena & Mort, 2006; Zahra et al., 2009). According to Haugh (2007, p. 743), social entrepreneurship is foremost a practical response to unmet individual and societal needs. Thus, solving social unmet needs is a key function of social entrepreneurship (Thompson et al., 2000). More often than not, the social problems addressed by entrepreneurs are part of their life experience (Barendsen & Gardner, 2004). Social entrepreneurs have intimate knowledge of the social issue at hand and the key stakeholders, and can mobilize their resources to carry out activities to effect change in innovative ways (Dees, 1998; Lepoutre et al., 2013; Thompson, 2002). Most researchers consider innovation to be a distinct element (Bacq et al., 2011; Bacq & Janssen, 2011; Dees, 1998; Peredo & McLean, 2006). Dees (1998) noted that social entrepreneurs are pioneers for social change. Innovation is used in the pursuit of opportunities to

create social change, and applies to novel approaches and business models (Austin et al., 2006). Personality characteristics and experience are key influencers in innovation and social entrepreneurship (Martin & Osberg, 2007, p. 33).

Since social entrepreneurs use market-based approaches to create social value, the organizations they found are considered to be hybrid organizations (Austin et al., 2006; Mair & Marti, 2006; Stevens et al., 2015). The financial mission is often subordinate to the social mission, because these entrepreneurs are primarily in business to achieve their social goals. However, this does not mean that they cannot have a healthy business model. We follow the spectrum approach, viewing social entrepreneurship as a continuum between more socially-oriented to more economically-oriented entrepreneurs (Battilana & Lee, 2014; Lepoutre et al., 2013; Miller et al., 2012; Young & Leczy, 2014).

3.3 Method

We seek to better understand whether lead users become social entrepreneurs. We want to establish its occurrence and to understand what drives these individuals. We seek to answer this research question: *What are the defining elements of lead user-based social entrepreneurship in practice?* Given that there has been little research into this phenomenon, we chose the cross-case study approach (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2009). The case study approach is common in the user innovation and social entrepreneurship fields (Baldwin et al., 2006; Bogers et al., 2010; Lüthje et al., 2005; Mair & Marti, 2009; Thompson, 2002; von Hippel, DeMonaco, & De Jong, 2014; Weerawardena & Mort, 2006). A reason for this may be that they are both young fields (Bogers et al., 2010; Lepoutre et al., 2013; Short et al., 2009). In these situations, where there is a lack of knowledge about the cause-and-effect, the variables, and the context's boundaries, the case study is a viable option to intensively study a phenomenon and to explore the presumed relationships (Swanborn, 2013). Case studies are a preferred option when research seeks to explain a phenomenon in its real-life context (Yin, 2009), and for describing phenomena as well as testing and generating theories (Eisenhardt, 1989). Thus, this method suited our objective. To find cases that met our research objective, we used a purposive sampling technique.

We used purposive sampling to gather example cases that captured the subject matter in great detail, which is in line with the extreme-case method, as

described by Gerring (2007, p. 104). The cases needed a clear social value creation component, and the solution had to be developed based on a personal unmet social need. We identified two cases during the 2015 Patient Innovation Award in Lisbon, where the founders of the Shower Shirt and the Firefly Upsee presented. EcoFemme was a case the first author used in Stuiver (2014) master's thesis, which we followed up on. These three cases were sufficient to establish its occurrence in the empirical reality and examine the phenomenon in-depth. We used the gathered information about these cases on the Internet to build a case profile. We contacted the case companies' founders to conduct in-depth telephone interviews to probe for lead user characteristics and how these influenced these social entrepreneurs in starting their businesses. These interviews were semi-structured, and we sent them questions beforehand. We recorded the interviews, which lasted approximately an hour.

Our point of departure for the analysis was the commercialization of a new or a modified product of service that has created social value and that was developed by its user(s). This indicates that the objective was to find (lead) user-innovators who had developed a solution to solve their personal unmet social need, expected to personally benefit from it, and then later commercialized this innovation. We used the measurement indicators of several scholars who have researched (lead) user innovation (Belz & Baumbach, 2010; Franke & Shah, 2003; Franke et al., 2006; Lilien et al., 2002), user entrepreneurship (Baldwin et al., 2006; Haefliger et al., 2010; Shah, 2000; Shah & Tripsas, 2007, 2012), and social entrepreneurship (Lepoutre et al., 2013; Nga & Shamuganathan, 2010; Stevens et al., 2015) so as to develop a codebook and a questionnaire. Please see the underneath table for the definitions used. In the following chapters the questionnaire's items are listed. These documents served as input for searching for and understanding the secondary data, and helped to structure the semi-structured interviews and the content analysis. The content analysis technique was suitable to analyze recorded communications and was textual analysis for scientific purposes (Duriau, Reger, & Pfarrer, 2007; Shapiro & Markoff, 1997, p. 14; Webster & Watson, 2002; Wolfswinkel et al., 2013). Specifically, it is the "systematic, objective, quantitative analysis of messages and computer aided text analysis." (Neuendorf & Kumar, 2006, p. 1).

Table 2: Definitions used

Construct	Definition
Social Entrepreneurship	<p>The entrepreneurial activities that address societal pains and enhance social wealth for their customers (Lepoutre, Justo, Terjesen, & Bosma, 2013; Zahra, Gedajlovic, Neubaum, & Shulman, 2009)</p> <p>Unmet social needs are the core of social entrepreneurship (Weerawardena & Mort, 2006; Zahra et al., 2009); other factors are social innovation, sustainability, and having a social vision (Nga & Shamuganathan, 2010).</p>
Lead user	Lead users “face needs that will be general in a marketplace—but face them months or years before the bulk of that marketplace encounters them, and—are positioned to benefit significantly by obtaining a solution to those needs” (Von Hippel, 1986, p. 796).
User innovator	Those individuals or firms, who are often lead users, that are the first to develop a working prototype to be used by themselves or similar alike, without the help or assistance of producers (von Hippel, 2005).
User entrepreneurship	The “commercialization of a new product and/or service by an individual or group of individuals who are also users of that product and/or service.” (Shah & Tripsas, 2007, p. 124)
Lead user-based social entrepreneurship	The commercialization of products and services by (lead) user-innovators who address societal pains and create social wealth
Ahead of trend	Lead users are ahead of others or ahead in a proposed solution’s novelty (Franke and Shah 2003), they are cutting-edge and pioneers (Franke and Shah, 2006).
Expected benefit	Dissatisfaction with the current situation related to high innovation-related benefits (Bogers, Afuah, & Bastian, 2010).
Personal unmet need	Personal experience with a problem. Designing for personal use. (Baldwin, Hienerth, & von Hippel, 2006)
Use experience	Use experience is derived from frequent use of products or services (Luthje 2004).

Product-related knowledge	Product related knowledge entails knowledge about the technology, the materials and the technology that are used in the market (Luthje 2004).
Prior knowledge	Pre-existing local stocks of technical knowledge and skills influence the type of solution (Lüthje, Herstatt, & von Hippel, 2005)
Community	A group of likeminded individuals, for instance open source communities, or sport communities. The Cambridge dictionary defines this as “people living in one particular area or people who are considered as a unit because of their common interests, social group, or nationality.” ¹⁰
Market failure	Market failures occur when markets allocate resources inefficiently, leaving a gap between demand and supply (Alvarez, Barney, & Newman, 2015; Bator, 1958).
Governmental failure	Governmental failures occur when government’s interventions in the economy or to correct market failures are unsuccessful and result in inefficient and/or exclusive allocations of resources (Le Grand, 1991; Wolf, 1979).

We asked all the case company founders whether they wanted to be anonymized; none did. All the participants self-identified as social entrepreneurs and as (lead) user-innovators. We will now summarize our three cases.

3.3.1 Illustrative Cases

Case 1: EcoFemme

EcoFemme is an organization that focuses on of menstrual hygiene management in developed and developing countries. It was co-founded by Kathy and Jessemijn [JM], who have developed a washable cotton cloth pad as an ecofriendly and sustainable alternative to disposable napkins. Kathy developed it after she moved to India and could not dispose of her sanitary napkin waste. While cloth pads have been around, they are extremely promising for developing economies such as India. In India, cloth pads are seen as a third viable option for

¹⁰ <https://dictionary.cambridge.org/dictionary/english/community>

menstrual solutions, between the expensive commercial ones with harmful chemicals and other unhygienic practices. EcoFemme promotes ecopositive menstrual practices, striving for social value as well as to contribute positively and sustainably to the environment. The organization's revenues support education and livelihood projects for women, teaching them about menstrual hygiene and about becoming a supplier/entrepreneur. It sells the sanitary pads internationally.

Case 2: Shower Shirt®

Shower Shirt's founder, Lisa Crites [LC], developed it after she was diagnosed with breast cancer and underwent a bilateral mastectomy. After surgery, she wanted to shower to feel a bit more as herself again (as opposed to a patient). However, she found that she could not shower, because this water is not sterile and often causes infections. There were no products that could keep her surgical drains dry. The home remedy solution was a plastic trash bag, with all its associated risks, but it never worked. After her surgeries (also breast reconstruction surgery), Lisa picked up infections from showering. This led her to develop a post-surgical, water-resistant garment, so that she and other patients could shower or bathe more safely, and comfortably. Shower Shirt, a protective garment for patients who want to shower, is creating immense social value for patients who are recovering from surgery.

Case 3: Firefly Upsee

Leckey Inc. produces the Firefly Upsee, a product that increases children's mobility. Debby Elnatan's [DE] son was born with cerebral palsy and had no leg functionality. Thus, he could not stand like other children, which affected his body development. Being able to stand up straight is crucial for the body's development. When her son grew and became heavier, Debby was unable to walk him herself. She then started to make devices that could function as a harness that connected the two of them via straps. These harnesses eventually led to the development of the Firefly Upsee. Owing to the Firefly Upsee, such children are now able to walk and participate in activities they would otherwise be isolated from. The product has also been licensed to a mobility manufacturer, Leckey, and is diffused worldwide.

3.4 Results

We will now report our findings based on our illustrative case analyses. We organized the findings in terms of the following broad topics: personal unmet needs, dissatisfaction (high expected benefits), ahead of trend, use experience, product-related knowledge, community, and market and governmental failures, as well as how these translated into their social business models.

As these examples illustrate, the innovation process starts when changes in personal circumstances occur, resulting in a personally experienced unmet need. This is apparent in all our cases, whether caused by moving to another country (e.g. EcoFemme), personal illness (e.g. Shower Shirt), or the illness of one's child (e.g. Firefly Upsee).

DE: *"I became an Inventor due to my son's illness. I also discovered sound therapy, it was an accidental discovery on my son [...] So I said, enough of this approach. I will start walking with him and let him know what his legs are. So that's why I did it, but it hurt my back to do it, so in a way, I invented this device for myself, for my back, and also so I can take care of his older brother and still have my hands free."*

LC: *"I was diagnosed with breast cancer in 2009, and I was told I could not shower due to my surgical drain. And I quickly realized there was no Shower Shirt garment, a water-resistant garment for patients like me, for breast cancer patients. So I ended up using a trashbag, several times, because the minimal times for using the surreal drains is three to four weeks. [...] And I kept asking, 'Why isn't there a product for my needs?' [...] So it was truly out of my own personal need, but also I believe that, I am a feminist at heart, and I did not want one more female in the shower to wear a trash bag after breast cancer or a breast amputation. [...] Because I do not really think it is fair that I am showering in a plastic trash bag to keep my drain."*

JM: *"It was definitely Kathy who came up with the product out of a sort of frustration. She was confronted with waste and how this was handled. The fires, and digging a hole in the ground to dispose of her sanitary waste. And that was when she came up with this product and thought, I am going to make this [...]. She was making it on a small scale for internal use and*

soon it went to others who also wanted it [...] I do not think we would have started this if Kathy did not experience this first-hand. I think we started it because she put it on the table and said, 'this is something we could do.'

Since lead users have deep use-related knowledge, they are able to experience that current market offerings do not meet their needs, or feel dissatisfied before others (Faullant et al., 2012; Raasch et al., 2008). This high problem pressure results in creative solutions (Lettl, 2005). In our three case social entrepreneurs, these elements had substantially influenced their innovation and commercialization outcomes. These events then triggered these users to actively search for solutions, because they wanted to overcome their unmet needs and thus expected to benefit significantly. Two of the three case entrepreneurs were not users of a similar product to begin with, while the other was already familiar with the product. This is an important deviation from the current literature. What they underwent was so formative that they all indicated that the business they now have would not have been started without these experiences. These events were often coupled with some dissatisfaction, which relates to the high expected benefit component of lead user characteristics. In the EcoFemme case, dissatisfaction, coupled with previous experience, resulted in changes to their eventual business model.

JM: *"I came from the NGO world and I was done with that. I did not feel like raising money and reporting about it. I wanted to have the freedom to decide that myself. [...] I just thought that when you have certain values and you put them on paper, you should act accordingly. But with many organizations, that wasn't the case. And I cannot work that way [...] There is so much time lost with ineffective reporting."*

Their unmet need and their informational advantages helped them to develop and test their innovation, often on themselves or the individual for whom they had developed it (Baldwin et al., 2006; Lüthje et al., 2005). Likewise, by taking the plunge and innovating, they strengthened their use-related knowledge and (subconsciously) enhanced their lead user status. We asked these entrepreneurs whether they considered their innovation or themselves to be ahead of a trend.

JM: *"I am not sure we are ahead of a trend internationally. There were all sorts of companies that made this. But in Indiana, and I also think it depends on where in India, I think we are ahead of trends. In the beginning, we were*

continually being shut down, people thought it was dirty and did not understand the products and thought it was ridiculous, going back in time and putting women back to washing again. This was thought of as a sort of anti-emancipation. But now it's been put on the agenda and it became a whole movement. Right now there are so many organizations that are working with the same theme here in India, so it was really helpful to make people interested."

DE: *"I was ahead because at the time the physical therapy schools did not believe you were supposed to activate a child like mine. They thought it would do more damage to walk him and crawl him, they thought it would raise his spasticity and contractions. I was told not to walk him and not to crawl him. And one day they came to me and said your son does not know what his legs are. So, I had enough of this approach. I will start walking with him and let him know what his legs are."*

LC: *"The fact is that there was not a water-resistant garment at all for any population on the market in the U.S. or even internationally. [...] We do not have any competition right now. There is no other product of its kind on the market at all."*

Thus, these unmet social needs create a lead user status. Undergoing these events also put these entrepreneurs in a unique position to recognize the value these innovations could have on a larger scale (Chandra & Leenders, 2012; de Jong, 2010; Shah & Tripsas, 2007). Their personal needs then contributed to the accumulation of in-depth knowledge about the customers' needs and to overcoming informational asymmetries. Their needs drove them to become users and, as users, they started to develop and test the innovations. They used their previous knowledge and the knowledge they had gained from becoming a user. The following illustrate the relationships between prior knowledge, previous experience, and the knowledge gained from using and testing:

JM: *"When I was little, I lived in Indonesia, and my mother sewed sanitary napkins with women. I did not really think about this. When I was in Cuba, I also made sanitary napkins for myself. It's just something I did because I like the products and I hate waste [...] It made me realize that I needed a*

concrete product when talking about waste, you need to be able to offer an alternative.”

DE: *“When I was at college, I did invent something for the cold winters of Maine to keep the heat in, it was like an isolated window shade I set up with women on welfare. Kind of like a little cooperative. Can’t say we really succeeded that big. [...] Other than that, my dad taught me to use tools [...] So my dad taught me to use tools, taught me to saw, and I had power tools. That, in combination, I was working at night in a band, playing in a band, so I had my mornings free to develop a prototype. My son would come home and I would try it out on him and in the evening. I was already improving. So I had a twenty-four-hour turnaround time, which not many people have. So I could work a lot faster than most people.”*

LC: *“That first year after my diagnoses, I had seven surgeries, two hospital-acquired infections, and four months of treatment. So I was in and out of the hospital so many times with drains. I probably had twenty-five drains over the years. So, on one hand, I was the perfect patient to test these prototypes because I, it was unfortunate I had these complications, but it was what it was, it is what it is, and so this even made me more focused, because I am not the only patient with complications. [...] I was a health and medical reporter for many years, so I interviewed a lot of doctors in general, so I reached out and said why isn’t there a product for me? [...] I wanted to help little kids. I was fortunate that my parents put me in gymnastics and dance classes, I was learning all that, I wanted to be able to give that to kids whose parents could not afford that. So I would teach them. In my twenties and thirties, I bought a couple of farms, because where I grew up in the Midwest, the farming community, and that was kind of the way you buy farmland. So, in a way, I have been an entrepreneur since I was young.”*

We see clear evidence of heightened levels of use experience and product-related knowledge. These cases also indicate that community interactions influenced their innovations.

JM: *“We tested out many different models on rural women, because they might have different wishes. [...] When you have passion and energy, it is contagious and you get people on board that want to put a bit of heart*

and soul into this. A friend does the design and another makes something different for us. This project is not Kathy and myself, but a whole big group of people with another group circling around it.”

LC: *“I did research and development and I said, I did it locally, I did it in my town here in Florida. Because I had the physicians I could speak to and interview. I had patients here, because I know all kinds of patients. [...] So I knew a lot of people, experts in the field, who gave me advice, and like I said, it was part of the research and development. I was working with a cosmetic surgeon, on media strategy, I wrote guest columns for him, and they had a breast cancer patient in there. And he said, Lisa, I know you are developing the Shower Shirt, and you got some prototypes, we got a breast cancer patient here and we told her about your product, and she would love to try it. [...] So anyway, yes, I had some of my local clients and friends who were physicians who would send patients to me. [...] So I was very lucky in terms of test marketing the product, too.”*

DE: *“I tried it out on people in a local pre-school. A therapist showed interest and asked me to come and try out on some kids. [...] The company I do work with started a Firefly web page. They started a Facebook page, Hatch, where they ask therapists and parents around the world to share their ideas on which products are the most desirable.”*

In the Shower Shirt case, the entrepreneur could use her professional community (network) and previous knowledge to research the potential demand and could also utilize her network to test her product. However, none of these users were in a user community or freely shared their prototypes. Shower Shirt and Firefly Upsee both patented their innovation, and used a community in a later stage to further develop their innovation. They contradict the logic that users are unable to patent their innovations (Lüthje et al., 2005; Shah & Tripsas, 2007). EcoFemme used its community to advance its product and also later used its community to test it.

We also found clear influences of market and governmental failures in relation to these unmet needs.

JM:

“There is a taboo on talking about menstruating. Many girls are uneducated. When they start to menstruate, they are treated differently. They cannot come into the kitchen and have to sleep alone. One girl thought she had cancer because she started to bleed [..] Here it is also linked to bad luck. Many girls do not go outside to bury their napkins, because when a crow flies over and sees the blood, this will bring disaster to the family. [..] When we went to the government, because within the livelihood sector the government is huge employer. But it was extremely difficult to work with the government, because we met people who thought it was unhygienic and were working against us. So we had to figure it out all by ourselves.”

DE: *“This could have been manufactured in Israel, but I wasn’t taken seriously. They did not realize the potential. I have pages of rejections lists. I left no stone unturned here. I was all over the country with all my inventions [..] It took me eighteen years to get the product out. I did not get help from any of the establishments who were there to help inventors of this kind. I wasn’t taken seriously. The target population is not big enough, it looked like a gimmick. I wasn’t taken seriously except by some therapists, parents. I had a business advisor, a mentor, a cousin who wanted to invest in me, and the legal company that helped me.”*

LC: *“This product is such a small niche in the big picture. I now believe that is why the big companies never developed it, because it wasn’t that there was no need.”*

These cases confirm Shah and Tripsas (2007) findings that users are sometimes better suited to enter the market than established manufacturers. In the EcoFemme case, the government did not solve or adequately handle the enormous waste issue that led Kathy to resort to digging holes in the ground to dispose of her waste. Markets are emerging, but with these countries’ waste handling, it would result in massive increases in waste. This confronted the entrepreneurs with how big the issue – and the taboo – was around menstrual hygiene. Further, when they approached the government, it seemed reluctant to help. The same applied for Firefly Upsee; she had to divert to another country to develop and commercialize her prototype. She also clearly articulated the difficulty of developing her innovation and her lack of support from the market. She felt she wasn’t taken seriously at all. Both she and Lisa pointed out

established manufacturers' roles in creating market failures in the health industry and how they seem to undermine user innovations.

DE: *"Well, I am becoming aware of the process about health products that are on the market. Investors are looking for a target population of billions and potential revenue of billions. So I am seeing a lot of great brains working in various fields, they could be social, they could be social innovators that are going into fields that are very commercial. And I am trying to understand what happened to them along the way. And now I think I understand, because I am starting to meet with investors and I see the way they think. This is what is determining what is on the market. This is a very upsetting and sad thing to see, that people are ending up- certain entrepreneurs I am following for years- they end up coming up with a device for migraines. And I am not devaluing solving a migraine. People who have migraines really suffer. I do not want to insult them. But I wonder. I see where they started and where they end up. I wonder if anybody has an idea."*

"So I ask investors, 'What if the market isn't as big as you think?' Do you know what they say? Do a different product. It has become very clear. They just say, 'Pick a different startup, change your startup to fit in with what the investors want.' Think about how many startups with how many important medical innovations are not going to succeed. How many people would persist eighteen years like I did with the Firefly Upsee? I did it because me and my kid need it. My heart goes out to all those children around the world. But what if I develop something that wasn't that close to my heart that was just as valuable, but the investors weren't interested? Then I do not know."

LC: *"Someone at the presentation [Patient Innovation Award Lisbon] said the medical industry is focused on researching and developing what will make them the most money with the most inexpensive cost. When you look at this [Shower Shirt], three-hundred-thousand women are diagnosed with breast cancer. Sixty-five percent gets mastectomies. So you are only looking at a hundred-and-fifty-thousand women if they choose to buy the Shower Shirt. So it's not a big numbers game. [...] The medical industry's R&D departments, they are looking at the bottom line, they are not looking at a product that is minimal in returns, like something like this. They are*

looking at the big stuff. [...] He also said your product is to make our lives better, to make our patients' experience easier. For the medical industry, that's not their primary focus."

This finding is in line with the research on user innovation, which indicates that this occurs in small and uncertain markets characterized by rapid changes (Baldwin et al., 2006; Shah & Tripsas, 2007). Market and governmental failures influence market characteristics. It is clear from these examples that individuals who first lived through an experience and who experienced these unmet needs first-hand develop different solutions and have different objectives with their solutions. Lead user-innovators develop significantly different solutions to established manufacturers – if these manufacturers are willing to develop solutions for these niche markets at all (Hienerth, 2006). For our examples, this was also the case. These experiences increased their prosocial orientations and their desire to make a difference for the individuals close to them. This relates closely to the literature on prosocial orientation, empathy, and compassion (Bacq & Alt, 2018; Germak & Robinson, 2014; Yitshaki & Kropp, 2016). Further, we also see how these experiences have formed the social ventures they have created. The literature on hybrid social businesses touches on social entrepreneurs' dual missions (Battilana & Lee, 2014; Bruneel et al., 2016; Hahn & Ince, 2016). We see that the cases displayed hybrid forms of social entrepreneurship.

JM: *"We wanted to do what we really wanted to do, which is setting up a company with which to make money, that enables us to educate girls and women and to offer subsidized products. That was our drive. [...] We see that the non-commercial growth is going faster than the commercial growth, and we are thinking about ways to balance this so that we can sustain ourselves. We are working on calculating the price on the sanitary napkins. So, if we reach our quota, we can sell it without margins and it is cost-effective."*

LC: *"Sure, I can tell you, not that it matters, you know, our company is debt-free. We pay for our patients, we have all the inventory paid for, and this is very, very good. But in no way is it that hugely successful in terms of numbers; it is hugely successful in terms of helping patients. There is no question. So that's two different focuses. Others give everything away; some are hardcore in making money. I am somewhere in the middle. I give*

Shower Shirts to a group called Breast Friends in Florida, as part of it is we have a Shower Shirt closet for women who cannot afford it. So they will get them out, use them, wash them, and give them back. I tell you, I have to say from a financial standpoint it would be wonderful if we would make more money, and I can ultimately create a foundation, to give them away to women who cannot afford them. But right now there is no question about it, it is not our primary goal. Sure we are still in the goal stage of raising awareness, and if you are raising awareness usually sales do increase. But no, I think that something like this, your focus has to truly be bettering your life and the lives of other patients. That got to be the sole part. Financial solely, you have a much more difficult road. [...] I would love to see more money coming in because I have not taken a traditional salary yet. I do consulting on the side and I have properties that make money. But is financial the primary driver, I would say not. It is important primarily because the more money the company can make the more money I can give back.”

DE: *“I need to sustain myself and my family and my work. I have nearly 20 years of work in this, and personal investments, all self-funded. That means our family savings have gone into this. So I have no shame in getting paid for the work I do. I cannot be a nonprofit; I need to earn money. I have been reinvesting in new products, new patents. I am very invested in this.”*

These cases clearly illustrate the continuum on which one can place social enterprises (Young, Searing, & Brewer, 2016; Young, 2006) as well as how these entrepreneurs create social value and balance their dual mission while finding ways to be sustainable over time. Further, since these three entrepreneurs have established their businesses their products have been diffused worldwide. We have established that lead user-based social entrepreneurship does in fact occur and will be interesting to research on a larger scale.

3.5 Discussion and Conclusions

We have found that individuals, through specific events that caused their unmet needs, become lead users and start developing solutions to address their social needs. The specific life events they encountered resulted in these users being ahead of the market place and they expected to benefit significantly from

obtaining a solution to their need, making these entrepreneurs lead users (Von Hippel, 1986). The high expected benefit component is clearly evident in the experiences of these entrepreneurs, which resulted in unmet social needs. The ahead of trend component is harder to establish in our cases of social entrepreneurship. Looking at EcoFemme, while the washable cloth pad had already been developed and cannot be considered as something new, this product is still ahead of trend because it was new to that market, and an alternative product did not exist in rural India owing to market failures. In that regard, they were ahead of the market place. Although the product was not high-tech, it can be regarded as a disruptive innovation and therefore scores high on innovativeness (Christensen et al., 2006; Hart & Christensen, 2002). Further, EcoFemme also distributes to other (Western) countries. This indicates that there is a larger market demand, even though alternative products are available for managing menstrual hygiene. The other two case products involved breast cancer and cerebral palsy, and are hard to judge along market trends. There was, however, a need in a niche of the marketplace. Nonetheless, the entrepreneurs do consider themselves and their solutions to be ahead of trend. What we see is that thousands of lives are helped by providing a product to unmet needs that otherwise would not be met. The product was not available, and the highly innovative approaches have led to new markets, which is in line with research findings in this space (Baldwin et al., 2006; Shah & Tripsas, 2007). All the entrepreneurs indicated that they would not have innovated or commercialized their innovations if these events had not happened to them. Their life experiences triggered their prosocial orientations. This is in line with the findings (Barendsen & Gardner, 2004; Hahn & Ince, 2016; Renko, 2013; Wood et al., 2013). Also, it created a sense of urgency and provided useful insights into the market demands.

These entrepreneurs used the skills and capabilities at their disposal to develop their ideas into prototypes (Lüthje et al., 2005; Schreier & Prügl, 2008). In the EcoFemme case, the entrepreneur used her experience and background, and did research to validate her ideas and to examine whether other women wanted to buy this product before scaling up. The same applied for Shower Shirt, where the entrepreneur used her network, her previous work experience in the medical field, and her experience as an entrepreneur. In the Firefly case, the entrepreneur used her experience as an inventor as well as the skills and capabilities at her disposal, which helped her in the innovation process. This is in line with research into the influences of prior knowledge and previous experience as contributors

in the entrepreneurial opportunity recognition process (Dimov, 2007; Shane, 2000). Prior knowledge helps one to interpret and use new information needed to make assessments and decisions (Baron, 2006; Shepherd & Patzelt, 2018).

While developing an innovation, users often collaborate with a user community (Franke & Shah, 2003; Jeppensen & Frederiksen, 2006). The community tests the innovation and provides assistance and feedback, which serves as viable information about other users' preferences (Shah & Tripsas, 2007). We see that after the case innovations were developed and were still in the testing phase, the entrepreneurs asked for feedback from a user community or from their professional network. However, this is not per se the user community they belonged to, unsurprisingly, because they became users after they experienced an unmet need. Although user communities did not play a role in recognizing their innovation ideas, these entrepreneurs indicated that the product further developed and that the design was altered through a community's input. However, in contrast to other findings (Jeppensen & Frederiksen, 2006; Shah & Tripsas, 2007; von Hippel, 1988), these entrepreneurs did not freely share and diffuse their innovations. Notably, two of the three case founders have patented their innovations. This stands in contrast to user innovation theory, which states that users will not undertake this process (Shah, 2000; von Hippel, 2005). The fact that it concerns medical devices can be seen as the motivation why this happened. These entrepreneurs do provide their products at lower prices or for free to a part of their target population who cannot afford it, but as part of their social business model and to enhance social value. This provides evidence for the dual logic of social enterprises, which in these studies were clearly hybrid organizations that combined their social value creation mission with an economic mission (Austin et al., 2006; Bruneel et al., 2016; Stevens et al., 2015). Although they are accidental entrepreneurs (Shah and Tripsas, 2007), they were purposeful in starting a social business.

Market and governmental failures are key in opportunity recognition in social entrepreneurship (Austin et al., 2006; Defourny & Nyssens, 2010) and user innovation (von Hippel, 2005). Our cases clearly illustrate the influence of these two failure types on individuals that underwent a specific life event. Further, they provide in-depth explanations of how an industry can counteract the development of novel innovations that seek to aid others. Although, in each case, the product could have filled a void in the market, it was considered an attractive opportunity by the market players. Even when the users proposed their solutions, they were turned down. Thus, market failures spurred these

entrepreneurs to come up with their own solutions. This finding has contributed towards answering to what the extent social entrepreneurs can fill a gap in the market (Austin et al., 2006). Social entrepreneurs' contributions are most valuable in situations characterized by social pains (Lepoutre et al., 2013). Since users find solutions to unserved, underserved, or niche markets, making their solutions extremely valuable to user populations that were not served owing to market or governmental failures. Added to this acute need for a solution is the fact that such a specialized product is unavailable in the market. According to Shower Shirt's founder, the target market was too small for established manufacturers, and developing such a product was deemed to be financially unfeasible. But the social entrepreneur behind each case product was motivated by this very lack of a market solution. Their vision went beyond dollars and cents as well as market feasibility. These founders asserted that they developed the products because financial value creation was not their primary objective. Market size did not influence their decision to commercialize; the social value creation potential kept them going. This, however, does not necessarily implies they are unwilling to make profits on the long-run. Most research has found that lead user-based entrepreneurs were niche players, and that the industries they operate in are characterized by uncertainty; this was also the case for our case companies (Hienerth, 2006; Lüthje et al., 2005). The sole reason why the product was developed was to create social change, i.e. to enhance the lives of thousands of patients and women worldwide. These cases illustrate that if solution knowledge is sticky, market failure can serve as a proxy for user innovation.

This study also has several limitations. Although the aim was not to generalize the findings, but to explore whether the focal phenomena could be observed and to understand it in-depth, the research method's lack of generalizability, and the amount of cases, can be regarded as a limitation. Because random sampling was not applied because the aim was to find example cases that best represent the focal phenomenon, case selection may be prone to selection bias (Gerring, 2007; Swanborn, 2013). As mentioned in Chapter 2, concerning the making of the codebook, based on the use of the keyword, articles that may have been relevant may not have been included in the sample, and vice versa. This may result in a sample of articles that does not incorporate all the elements needed to make statements about lead user-based social entrepreneurship. Another limitation may be our focus on the relationship between governmental and market failure in relation to personal unmet needs as a proxy for lead user-based social entrepreneurship. We did not include other causes of unmet needs that can

trigger lead user innovation or social entrepreneurship. Since the interviews concerned events that happened in the past, memory recall or hindsight bias of the interviewees may have occurred as well. Hindsight bias “refers to people’s tendency to alter their perception of the inevitability of an event once they know the outcome of the event” (Christensen-Szalanski & Willham, 1991, p. 147). Whereas recall bias is the “systematic error due to differences in accuracy or completeness to recall to memory of past events or experiences” (John, 2001, p. 153).

To date, the research into lead user-innovators has only been conducted in limited settings (Shah & Tripsas, 2007). Our research has helped to establish this phenomenon in adjacent domains, where users create immense social value with their innovations, which they also commercialize. This study has helped to specify the constructs of the (lead) user innovation literature and how these can be applied in a social domain. So far, the lead user innovation and entrepreneurship literature has focused on the lead user characteristics as well as product-related knowledge and use experience as proxies for user innovation likelihood. We add life events as a specific source for personal unmet needs and use-related knowledge which can trigger the lead user innovation and entrepreneurship process. We provide interesting avenues for future research that could contribute to a better understanding of lead user-based social innovations and social entrepreneurship in contexts characterized by social unmet needs. It would also be very interesting to investigate the extent to which user entrepreneurs contribute to social value creation and whether lead users create social value in novel and more innovative ways than non-user social entrepreneurs. This research has contributed to an enhanced understanding of the antecedents that contribute to social value creation opportunities. Further, lead user-based social entrepreneurship helps one to better understand the not yet fully understood link between social innovation and social entrepreneurship (Phillips et al., 2015). Social innovation can bring about systemic change to address social market failures (Nicholls, 2010) and can solve social unmet needs, which requires innovative solutions, it will be very valuable to incorporate lead user innovation and entrepreneurial principles into contexts characterized by social unmet needs.

Chapter 4: From Lead User to Social Entrepreneur: How Lead User Characteristics Influence Starting a Social Business¹¹

Summary

We examine the extent to which lead user characteristics (personal unmet needs, being ahead of trend, and experiencing high expected benefits from developing a solution) influence entrepreneurs to start a social business. We use a sample of 133 (nascent) social entrepreneurs who enrolled in a social entrepreneurial training program in the Netherlands. Our approach is mixed-method one that combines quantitative (survey) and qualitative (interviews) research. We conduct a multiple regression analysis to examine whether lead user characteristics influence starting a social business. We examine whether lead user-innovators are also active in the domain of social entrepreneurship and whether they develop innovations that create social impacts. Our results show that being ahead of trend influences starting a social business, while the having high expected benefits construct is a positive significant factor that contribute to starting a social business. Use experience was found to be almost significant, while personal unmet needs and product-related knowledge did not influence this model. Since the interview data clearly indicate the influence of having personal unmet needs, we developed a second model to more closely examine this. The same lead user characteristics significantly influenced this model.

4.1 Introduction

As a child, Danielle suffered from intestinal problems that prevented her from fully engaging with the other children in her class. She needed a special diet to be able to participate with her peers. She was bullied and became very insecure. She started experimenting with ingredients and underwent mindfulness training. Danielle used her experience with food and mindfulness to develop a mindfulness and food program to help others with intestinal problems, as she did, while also building their confidence. In 2018, she started a company, a social enterprise that has become extremely popular. This example shows how prior knowledge and experienced personal unmet need influence social

¹¹ Previous versions of this chapter have been presented at the 2017 Annual Social Entrepreneurship Conference in Boston and the 2017 High Tech Small Firm Conference in Amsterdam

entrepreneurs' opportunity recognition process and business development process.

Non-monetary motivations and solving personal unmet needs for a broader community of likeminded persons have been found to be key aspects in the user innovation process (Franke & Shah, 2003; Ogawa & Pongtanalert, 2012; Shah & Tripsas, 2007). These two aspects relate to social entrepreneurship, since social entrepreneurs are in business to create social value primarily to address social unmet needs (Austin et al., 2006; Haugh, 2007, p. 743). Social entrepreneurs have intimate knowledge of the social issue at hand and of the key stakeholders, and can mobilize their resources to take actions to effect change (Dees, 1998; Lepoutre et al., 2013; Thompson, 2002). Both lead users and social entrepreneurship use innovation to create solutions to unmet needs. Thus, we argue that there are striking similarities between lead user-innovators and social entrepreneurs.

Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth for customers by creating social value (Lepoutre et al., 2013; Zahra et al., 2009). Social entrepreneurs seek to create social value. They are often active in domains characterized by market failures and governmental failures (Austin et al., 2006; Defourny & Nyssens, 2010; Miller et al., 2012). Social entrepreneurs are characterized by social innovation, sustainability, and social vision (Nga & Shamuganathan, 2010). Social ventures are often established based on the founder's personal circumstances (Hahn & Ince, 2016). Specific life events can influence prosocial entrepreneurial behaviors and a nascent social entrepreneur's social orientation (Barendsen & Gardner, 2004; Conway & Steward, 2009; Light, 2005; 2013; Yitshaki & Kropp, 2016). Social entrepreneurs often have a very good understanding of the needs of their potential customers, because they belong to the same disadvantaged population they serve (Renko, 2013). This relates closely to the literature on end-user innovation and entrepreneurship, where personal unmet needs trigger the opportunity recognition process for innovations and businesses (Shah & Tripsas, 2007, 2012).

The lead user and user innovation literature informs us about the influence of personal unmet needs as a trigger for end-users to start innovating and subsequently become entrepreneurs (Baldwin et al., 2006; Hienerth, 2006; Shah & Tripsas, 2007, 2012). Lead users are ahead of, or create, a market trend by putting their solutions into the market. Users also expect to benefit significantly

from developing solutions that solve their unmet needs (von Hippel, 1988, 2005). Their personal unmet need has a signaling function to develop a creative and innovative solution to overcome these needs. Users find solutions to underserved or niche markets, making their solutions extremely valuable for user populations that are not served owing to market or governmental failures. Users, with their specific use experiences, sometimes find solutions that are overlooked or are deemed unimportant by established manufacturers (Baldwin et al., 2006; Lüthje et al., 2005; Shah & Tripsas, 2007). The domains in which user innovation research takes place are shifting to more sustainability oriented goals (Grosse, 2018). Combinations of user-innovators as social entrepreneurs were found in a study of grassroots innovations (Ross, Mitchell, & May, 2012). Nonetheless, there has been very little research into lead user-based social entrepreneurship and whether a specific lead user characteristic may be appropriate for social value creation.

We study the influence of having a personal unmet need as well as lead user characteristics on starting a social business. Our research question is *to what extent do personal unmet needs as well as lead user characteristics contribute toward establishing a social business?* First, we reviewed the literature and built a model to show the expected relationships. We then tested this model using data collected from a startup incubator program. We report our data analysis and results, concluding by discussing our findings. We contribute to the literature by shedding light on how the antecedents of social entrepreneurs affect their starting a business. By using these insights, our research helps to explain the link between social innovation and social entrepreneurship.

4.2 Background

4.2.1. Social Entrepreneurship

Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth by creating social value (Lepoutre et al., 2013; Zahra et al., 2009). Social entrepreneurs address social unmet needs in innovative ways, resulting in social value creation (Bacq & Janssen, 2011; Thompson, 2002). Having a social vision to create social value is the key distinguishing aspect of social entrepreneurs (Austin et al., 2006; Bacq et al., 2011; Mair & Marti, 2006; Nga & Shamuganathan, 2010). Social entrepreneurs' initiatives seek to empower individuals, aim at sustainable solutions, and bring about systemic change, often in the environmental and public domains (Short et

al., 2009). Social entrepreneurs often seek to solve needs caused by governmental and market failures (Hoogendoorn, 2016; Nga & Shamuganathan, 2010; Santos, 2012; Thompson et al., 2000). Thus, they have a key role in improving communities, helping to reduce inequalities (Weerawardena & Mort, 2006) and to diminish deprivation (Austin et al., 2006; Lumpkin et al., 2013; Thompson, 2002). The enterprises social entrepreneurs establish have a primary social focus (alter, 2007 Social entrepreneurs are in business to create social value or impact first; their economic mission is a way to sustain their social mission.

Social entrepreneurs use market-based approaches to create social value, combining social and economic missions (Austin et al., 2006; Mair & Marti, 2006). Drivers of the social mission are that social entrepreneurs relate to a social problem because they have experienced these difficulties or know others who have (Belz & Binder, 2017; Yitshaki & Kropp, 2016). First-hand experiences are important for the recognition of a social problem and can trigger social entrepreneurial intentions and prosocial orientation (Belz & Binder, 2017). Findings based on research into social entrepreneurs' motivations found that social entrepreneurs are motivated to help others because they care for them and/or they feel that it is the right thing to do (Renko, 2013). Germak and Robinson (2014) found that personal fulfillment, helping society, a non-monetary focus, an achievement orientation, and closeness to a social problem result in higher social entrepreneurial motivations. Social entrepreneurs are often seen as altruistic individuals who work to enhance society, even at their own expense (Germak & Robinson, 2014; Thompson, 2002). Besides altruism, other factors that can trigger social entrepreneurship include experiencing a psychological threat, sympathy, empathy, and compassion (Bacq & Alt, 2018; Miller et al., 2012; Shepherd & Patzelt, 2018). Miller et al. (2012, p. 620) argued that social entrepreneurs start their businesses based on compassion for others, with compassion acting as a motivator of cognitive and affective processes. These processes increase integrative thinking and prosocial judgments of the costs and benefits of social entrepreneurship, and foster the commitment to alleviate the suffering of others. Empathy's influences on social entrepreneurship, prosocial orientations, and startup intentions have been researched among others by Bacq and Alt (2018) as well as Dees (1998). Empathy influences how people respond to the experiences of others, which influences social entrepreneurial feelings, self-efficacy, and social self-worth

(Bacq & Alt, 2018). Compassion and empathy result in social entrepreneurs feeling compelled to give back to society and to assuage social pains.

4.2.2. Lead User Innovation

User-innovators are individual or professional end-users who are the first to develop an innovation to a functional state without the help of producers. They innovate to solve a need they encounter in their own lives (Von Hippel, 1986, 2005). User innovation is a form of the distributed innovation process, indicating the sources of innovation that fall outside the focal firm (Bogers et al., 2010; Bogers & West, 2011). *Sticky* information as well as market and governmental failures are seen as incentives for users to innovate (von Hippel, 1994). When users innovate, they often have specific characteristics and are considered to be lead users. Lead users “face needs that will be general in a marketplace—but face them months or years before the bulk of that marketplace encounters them, and—are positioned to benefit significantly by obtaining a solution to those needs.” (Von Hippel, 1986, p. 796). While the user innovation process starts with a user experiencing a personal unmet need, which is essential for becoming a lead user, the research has treated this as only an implicit trigger. We focus on this antecedent. Other key elements in the innovation process are that lead users have use experience and product-related knowledge (Lüthje, 2004).

User innovation has been studied in relation to industrial products, intermediate professional users and end-user innovation (Flowers et al., 2012; Lüthje, 2004; Raasch et al., 2008). A wide range of research has delved into the characteristics and differences in the innovation process of lead users versus non-lead users (Lilien et al., 2002; Raasch et al., 2008; Schreier & Prügl, 2008). Lead user theory was initially developed to select and identify commercially attractive innovations developed by users so as to integrate these into a manufacturer’s production process, less on lead users becoming entrepreneurs. The initial belief was that users would not commercialize their innovations, owing to high barriers to entry and the origins of the innovation process being for personal use (Bogers et al., 2010; Shah & Tripsas, 2012; von Hippel, 1988). Yet entrepreneurship by innovating users is not uncommon (Baldwin et al., 2006; de Jong, 2010; Shah et al., 2012; Shah & Tripsas, 2007). Entrepreneurial lead user-innovators have been detected in several industries, such as extreme sport (Baldwin et al., 2006; Hienerth, 2006; Shah, 2000), juvenile products (Shah & Tripsas, 2007, 2012), film animation (Haefliger et al., 2010), the bicycle industry (Hanna, 2008), and the virtual world (Chandra & Leenders, 2012). Recently, this

has also been extended to the social and/or the sustainability domain (Grosse, 2018; Ross et al., 2012).

In our view, various aspects from the literature on lead user innovation can be beneficial for understanding the antecedents of social entrepreneurship. Owing to their characteristics, lead user-innovators – instead of manufacturers- may sometimes be better suited to innovate and commercialize their innovation in the social domain. Recent studies have covered patients-as-innovators, who create and commercialize products and services that have immense social value (Conway & Steward, 2009; Oliveira et al., 2015; Wood et al., 2013), indicating that users may be active in the social domain. Users-innovators find solutions to underserved or niche markets, making their solutions extremely valuable for user populations that are unserved owing to market or governmental failures, which is often the case in the social domain. Shah and Tripsas (2007) illustrated that users have had roles in the establishment of social service organizations, such as the AA, and marked this as an area for future research. However, there has been very little research into lead users who create social value (Huysentruyt & Stephan, 2011). We will now describe the characterizing elements of user innovation and commercializing processes which may be beneficial for recognizing an opportunity in the social domain.

4.2.2.1 Unmet needs

Having a personal unmet need is a key trigger in becoming a lead user. von Hippel (2005) showed that 84.5% of his sample respondents indicated that their needs information came from personal experience, making it a key antecedent of becoming a lead user. The social entrepreneurship literature has found that entrepreneurs' personal circumstances may form the basis for social ventures (Hahn & Ince, 2016). Specific life events influence prosocial entrepreneurial behaviors (Yitshaki & Kropp, 2016). Personal unmet needs, such as hardship or radical changes in one's life, can spur prosocial opportunity recognition, and this knowledge is then used to help persons with similar needs (Asarkaya & Keles Taysir, 2019; Barendsen & Gardner, 2004). Since there is clear link to the literature on social entrepreneurship, we focus on this construct. Thus, we argue that a personal unmet social need can create a lead user status, potentially triggering the user innovation process, with social entrepreneurship as a result.

H1: Personal unmet needs positively influence the development of social businesses

4.2.2.2 Ahead of trend

Being ahead of trend refers to lead users experiencing needs that later become general in the (mass) market. This can manifest in experiencing needs ahead of others or in a proposed solution's novelty (Franke & Shah, 2003). Overall, lead users are at the cutting-edge. Being ahead of trend relates to an innovation's commercial attractiveness (Franke et al., 2006). Innovation is regarded as a key element of social entrepreneurship and is used in the pursuit of opportunities to create social change (Bacq & Janssen, 2011; Dees, 1998; Nga & Shamuganathan, 2010; Peredo & McLean, 2006; Thompson, 2002; Zahra et al., 2009). Social entrepreneurs implement their innovative solutions to overcome market and governmental failures (Santos, 2012) and to change the social equilibrium (Phillips et al., 2015). Based on the role of innovation in both literatures, we expect being ahead of trend to relate positively to starting a social business.

H2: Being ahead of a market trend will positively influence the development of a social business

4.2.2.3 Expected benefits

When a solution contributes to solving a need that is important to a user, it is more likely that this user will innovate to try to find a solution (Franke et al., 2006; Lüthje, 2004; von Hippel, 1988). Often, the higher the innovation-related benefits, the higher the dissatisfaction with the current situation (Bogers et al., 2010). Dissatisfaction is key and triggers action (Franke et al., 2006). We see a link to the literature on prosocial orientations, which indicates that social entrepreneurs have a very high understanding of the needs of their potential customers, because they frequently belong to the same disadvantaged population they serve (Renko, 2013). Their business often aim to address societal pains not adequately solved by the state, civil society, or the market (Lepoutre et al., 2013, p. 695). Implicit in these societal pains are high unmet needs and high expected benefits for solving these. For social enterprises, the founder's personal motivations are key in establishing an organization and determine the social value it will create (Bacq & Janssen, 2011; Short et al., 2009). Thus, we expect that high expected benefit in the definition of a lead user can trigger social opportunity recognition and starting a social business.

H3: Having high expected benefit regarding a solution positively influences the development of a social business

4.2.2.4 Use expertise and product-related knowledge

Having a personal unmet need and lead user characteristics alone are not enough to innovate; a user's skills levels, combined with personal experience and technical knowledge, also influence innovation likelihood (Lüthje et al., 2005; Schreier & Prügl, 2008). User-innovators are use experts and have the product-related knowledge needed to innovate. Use experience is derived from the frequent use of products or services, and product-related knowledge entails knowledge about the materials and technologies used in the market (Luthje 2004). Users' unique knowledge and skills enable them to develop solutions that are personalized to their own needs (Bogers et al., 2010). The combination of their unique needs and their specific capabilities gives users a good sense of market demands, which – in turn – favor the opportunity recognition process and the business development process (Shah and Tripsas 2007). Since being an expert in use relates closely to product-related knowledge, albeit to different expertise types, we propose:

H4: Use experience positively influences the development of a social business

H5: Product-related knowledge positively influences the development of a social business

Based on the literature we have discussed, we developed the following model to test our hypotheses.

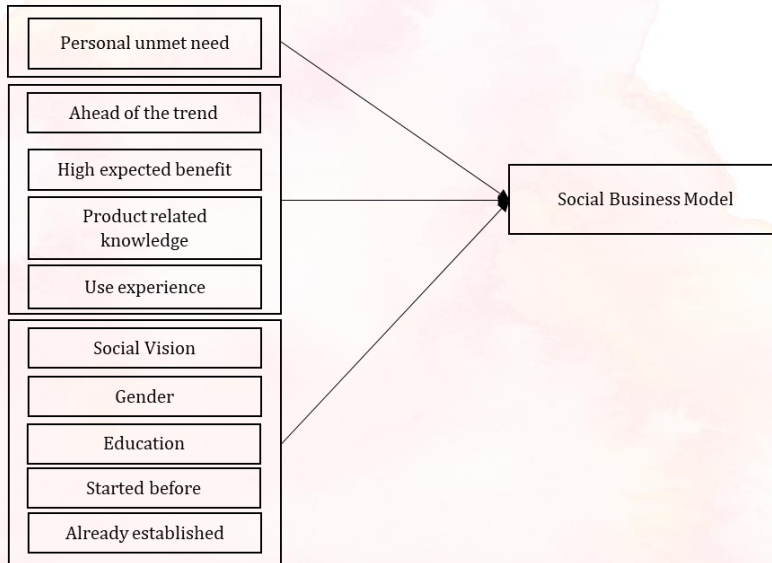


Figure 10. Conceptual Model Chapter 4

4.3 Method

To gain a better understanding of lead users' social entrepreneurial processes and examine whether the lead user characteristics influence social venture creation, we examined participants of a business incubator in the Netherlands. We use a mixed-method approach (Tashakori and Teddlie 1998; Creswell and Clark 2007), including qualitative (in-depth interviews) and quantitative data (survey research). Mixed methods allow for a better understanding of a problem at hand, and the data provide a more complete picture (Creswell and Clark 2007). We applied a hierarchical multiple-regression analysis to examine the variables' effects on starting a social business, combined with interviews. Our sample consisted of 133 (nascent) social entrepreneurs who had applied for the Move2Social entrepreneurship training program. When applying, all the applicants knew that selection was based on the time available, whether they were from the region in which the project was going to be held, whether social impact was clear and present, and whether there was a willingness to become an entrepreneur or grow as an entrepreneur. The program, which started in 2017, had multiple rounds in multiple locations in the Netherlands. The data collection took place between March 2017 and May 2018.

We examine the extent to which having a personal unmet need concerning a social problem as well as the lead user characteristics influence establishing socially oriented businesses. Our research question is *to what extent do personal unmet needs as well as lead user characteristics contribute toward establishing a social business?* We developed an extensive questionnaire to measure different lead user characteristics. We will now discuss the measures as well as their consistency and reliability in some detail. Further, we included the personal unmet need component as well as several control variables, such as having a social vision, education, entrepreneurial experience, and gender. Based on the scientific literature, the survey was in English. Since our sample size consisted of Dutch participants, an independent translation agency translated the questionnaire into Dutch; it was then back-translated back so as to assess accuracy. The translated questionnaire was transferred into LimeSurvey, an online survey tool, which the respondents could fill in. We conducted 19 follow-up interviews with participants who had indicated that their business idea was based on a personal unmet need. In the in-depth interviews, we probed the lead user characteristics and their motivations for starting their businesses.

We used measures for lead user innovation and entrepreneurship that had already been validated and tested (see Tables 1 to 3). To establish these items' reliability, we conducted a factor analysis for all the variables to see which items loaded on the construct. The items loaded as expected, the KMO for all the lead user items was .79, whereas per item ranged between .72-.79, which is considered good (Field, 2009). Further, we developed several questions to measure the extent to which personal unmet needs influenced a respondent in the opportunity recognition process and in the business development process. We developed a measure to explicitly focus on the personal unmet need component, which to date the research has treated only as an implicit component of the construct high expected benefit. Since it is an antecedent of social entrepreneurial opportunity recognition (Barendsen & Gardner, 2004), we focused explicitly on it, using it as a proxy for researching lead user characteristics' influences on the sample entrepreneurs' social entrepreneurial processes. In the interviews (n = 19), we probed for personal unmet needs in relation to business ideas and to what extent this had influenced them.

4.3.1. Measures

4.3.1.1 Dependent Variables

Table 3. The Dependent Measures

Social Business Model (Model I)	
Social business model	<ul style="list-style-type: none">• My business idea reflects my understanding of the needs of others
Measure based on Belz and Binder (2017)	<ul style="list-style-type: none">• My business idea reflects my personal experience with a social /ecological problem• I have designed my business model following my will to help people in need• My business model has evolved in a way that I can better help to solve the social/ecological problem I am concerned with

The items could be answered on a five-point Likert scale (between strongly disagree and strongly agree). The Cronbach's alpha of this construct was 0.72.

Personal experience (model II)	<ul style="list-style-type: none">• My business idea reflects my personal experience of a social /ecological problem
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4.3.1.2. Independent Variables

Table 4 The Independent Measures

Lead user measures	
Personal Unmet need	Is this product or service based on an unmet need you experienced? (yes: 107, no: 35)

Ahead of trend.
Adapted from
Franke and Shah
(2003)

- I usually find out about new products and solutions earlier than others
- I have benefited significantly from early adoption and use of new products or services
- I am regarded as being on the 'cutting-edge'
- I improved and developed new products or services that seek to create social value
- I am regarded as a pioneer

The items could be answered on a five-point Likert scale (between strongly disagree and strongly agree). The Cronbach's alpha of this construct was 0.70.

High expected
benefit. Adapted
from Franke et al.
(2006). We omitted
all the items that
indicated a
personal unmet
need

- I have needs concerning products or services that create social impact or social value that have to date not been satisfied
- I am often confronted with social problems that cannot be solved by current products or services available in the market,
- Available products or services that create social impact or social value are sufficient for my needs
- I am constantly searching for improved product or services that create social value or social impact
- I often get irritated about the lack of sophistication in certain (parts) of products or services create social impact or social value that I use

The items could be answered on a five-point Likert scale (between strongly disagree and strongly agree). The Cronbach's alpha of this construct was 0.73.

Product-related
knowledge. Based
on Belz and

- In my circle of friends, I am considered an expert in relation to my business idea
- I know much about social value creation or social impact in relation to my business idea

Baumbach (2010); Lüthje (2004)

- I consider my knowledge as high regarding products and services that create social impact or social value

The items could be answered on a five-point Likert scale (between strongly disagree and strongly agree). The Cronbach's alpha of this construct was 0.71.

Use experience. Based on Belz and Baumbach (2010); Lüthje (2004)

- I am very familiar with the product or service
- I regularly use the product or service
- I know the advantages and disadvantages of the product or service that create social impact

We added the last questions:

- Because I use the product or service often I am able to recognize market opportunities that others can not recognize
- Because I use similar products or services often, I know what needs to be improved
- Because I use the product or service often I have knowledge advantages that others do not have

The items could be answered on a five-point Likert scale (between strongly disagree and strongly agree). The Cronbach's alpha of this construct was 0.77.

4.3.1.3. Control Variables

Table 5. The Control Measures

Control Measures

Social vision

- I am clearly able to identify a social need
- I am able to create a clear social vision

Nga and
Shamuganathan
(2010)

- I am strongly committed to a social vision
- I take a focused stand on social issues
- I am determined to meet a social need
- I have strong motivation to defend a social need, I am determined to be an agent of social change, I am not easily distracted to pursue other non-social issues

The items could be answered on a five-point Likert scale (between strongly disagree and strongly agree). The Cronbach's alpha of this construct was 0.88.

Gender

- What is your gender?

(64 males, 78 females)

Entrepreneurial
experience

- Is your organization already established?
 - If yes, how many years?
- Have you started a company before?
 - If yes, how many?

To provide some context about the distribution of entrepreneurial experience in this sample, 87 (61.3%) entrepreneurs had started a business before; 55 (38.7%) were novice entrepreneurs; the average number of business started was 2, with a standard deviation of 1; 81 (57%) indicated that the business was already established, while 61 (43%) stated that this was not the case; the average age of the business was 3 years, with a standard deviation of 4.5 years.

Education

- What is the highest degree or level of education you have completed?
- If currently enrolled, what is the highest degree received?

In this sample, 8 (7.4%) had completed secondary education or secondary vocational education as their

highest degree, while 26 (24.1%) had a professional education, and 74 (86.5%) had completed an academic education.

4.4 Data Analysis and Results

To analyze our data, we used SPSS version 25 and conducted a multiple-regression analysis. We analyzed our data by using multivariate regression, examining the effects of the lead user characteristics and social vision on establishing a social business. We specifically chose a hierarchical multiple regression because we wanted to understand the unique contributions of our independent variables on starting a social business. We assessed the suitability and assumptions of conducting a multiple regression analysis prior to our analysis.

The correlation table on the next page shows how the variables correlate.

Table 6. An Overview of the Means, Standard Deviations, and Correlations

	Me an	S. D.	1	2	3	4	5	6	7	8
1 Social business model	4.19	0.61	1							
2 Personal unmet needs	0.75	0.43	0.99*	1						
3 Ahead of trend	3.27	0.66	0.231*	0.110	1					
4 Expected benefits	3.94	0.58	0.06**	0.46**	0.67**	1				
5 Use experience	3.52	0.70	0.073**	0.425**	0.310**	0.324**	1			
6 Product-related knowledge	3.91	0.67	0.081**	0.147	0.492**	0.491**	0.409**	1		
7 Social vision	4.18	0.54	0.025**	0.064	0.309**	0.459**	0.311**	0.467**	1	
8 Personal experience with	4.37	0.74	0.086**	0.12**	0.087**	0.477**	0.368**	0.318**	0.390**	1

Notes: * Correlation is significant at the 0.05 level (two-tailed). ** Correlation is significant at the 0.01 level (two-tailed).

We used a stepwise hierarchical multiple-regression analysis. When entering only personal unmet need, 2.8% of the variance of the entire model was explained and was significant at the 0.03 level (two-sided). When entering the lead user characteristics, personal unmet need lost predictive power, indicating that the lead user variables partially take over the predictive power of personal unmet need. In this step, expected benefits and use experience were significant. Ahead of trend was negative and product-related knowledge positive; however, both were insignificant. When adding social vision in our final model, we found that the high expected benefit component as well as having a strong social vision were key predictors of setting up a social business model. Use experience was almost significant (0.065).

Table 7. Multiple Regression Results on Social Business Model

Regression on:	Model 1		
	Social business model		
	B	SE B	Sig.
Constant	0.88	0.47	
Personal unmet need	0.06	0.14	0.35
Ahead of trend	-0.05	0.09	0.31
Expected benefit	0.30	0.11	0.01
Use experience	0.14	0.09	0.07
Product-related knowledge	0.03	0.10	0.39
Social vision	0.39	0.12	0.00
Adj. R ²	0.35		

Sig. values are one-sided

4.4.1 Personal Unmet Needs and High Expected Benefits in the Development of a Social Business

Many interviewees indicated that personal unmet needs functioned as trigger for them, helping them to recognize the opportunities for their product, service, or business idea. However, personal unmet need was only significant in step 1. Yet, since it is a contributor, we will now list several examples of the personal or professional experiences that triggered the opportunity recognition.

Table 8. A Summary of Personal Unmet Need as a Driver

Personal Unmet Needs

- 128: *"I came up with [the business idea] because of my father. That good man got a brain hemorrhage at seventy-two. He was always vital, full of energy, and always busy. But from one day to the next he could no longer mow his own lawn. That opened my eyes."*
- 131: *"Thirty months ago, we sat down, me and two friends, because we had personal and professional experience of this. For me, it was because of my dad. He lived in our home for five years and developed dementia."*
- 4: *"I started this project when I decided to no longer buy clothes and instead make everything myself. This was part of the project. I wanted to show people how much time it takes to make an item of clothing."*
- 37: *"I was working at a company when I went bankrupt. Then I noticed how having no money impacts you. The bailiff comes to the door. I noticed how important it is to have a stable home situation. Not just a house, but really a stable home situation. But, also, that you are treated with dignity, and that your employer has an eye and an ear for your problems, which was not so in my case. [...] I know how it is to not fully*

be included. [...] All these things I experienced made me realize that it can be done differently."

13: *"My background is in cultural work. I have always worked in the social sector, particularly with youth. So, yes, it is basically ingrained in me."*

1: *"A friend came to me. She has a son with Down syndrome and she was looking for a buddy to do social things with... go to a pub. My current business had no room for such a request and hence could not act on the idea. But the idea nestled in my head. Then when my mom got sick, she was sick for twenty-six years and spent twelve in a nursing home, she was also looking for a buddy who could be with her or do her nails. So I used my mom as a pilot in the end."*

59: *"The idea comes ten percent from personal experience, thirty percent from my environment, and sixty percent from conversations I had with caretakers whom I had met professionally. However, my previous work experience contributed one-hundred percent toward this business idea. I also have personal experience with the problem. I am a caretaker. So, it is a bit of a mix. However, most comes from my professional background."*

61: *"I receive benefits and I want to help others like me who also receive benefits or have a Wajong [Disability Benefits Act for Young Disabled Persons]. I want to show that is also possible to actually get out of receiving benefits. I can help people and I think the social part is absolutely necessary. I do that through music and the workshops I give."*

Since the interview data clearly showed personal unmet needs' influence, we developed a second model, which tested the influences of lead user characteristics and having social vision on starting a business where the business idea reflects a founder's personal experience of a social or an ecological problem (which relates to the personal unmet need component). We used the same conditions to test this model, except that we excluded the personal unmet need variable so as to reduce the risk of multicollinearity. We again used a hierarchical regression model to test the different conditions' influences on a business idea.

Table 9. The Multiple Regression Results on Business Idea based on Personal Experience of a Social /Ecological Problem

Regression on:	Model 2		
	Business idea based on personal experience with social/ecological problem		
	B	SE B	Sig.
Constant	1.137	0.621	
Ahead of trend	0.039	0.121	0.23
Expected benefit	0.514	0.155	0.00
Use experience	0.228	0.114	0.01
Product-related knowledge	-0.089	0.124	0.35
Social vision	0.213	0.141	0.03
Adj. R ²	0.279		
N	133		

Sig. values are one-sided

When entering the lead user characteristics in step 1, we see that use experience and high expected benefit are significant in the model. Being ahead of trend and product-related knowledge were insignificant in this model. When entering social vision, we see that this variable was also significant as a one-sided effect. Again, the model's predictive power was lower after adding the control variables (the adjusted R² went from 0.27 to 0.25). Thus, we report the model without

these variables and report an adjusted R^2 of 0.27. For a detailed overview of all the steps, see Table 10 in the Appendix.

4.4.2 Being Ahead of a Market Trend and the Development of a Social Business

We found the lead user characteristic ahead of trend to be insignificant for starting a social business. Since innovation is a key element of social entrepreneurship, we expected that ahead of trend would be a significant contributor to establishing a social business. Especially considering that most sample entrepreneurs considered themselves to be innovative, we expected that this would influence the model more. For instance, a respondent (131) answered the question on ahead of trend as follows: *"I do see myself a bit as a pioneer and ahead of a trend. For example, we think that doing something with music in our facility may be good for our residents. This doesn't mean it doesn't happen elsewhere, but we want to do it a bit different to other facilities."* Another (2) indicated that *"I am not sure I am innovative. I do think of myself as inventive. I think being innovative is doing new things and being inventive. I also think it is looking at existing things in a smart way."* Another indicated (37): *"I am the first to suggest this total approach [...] No one has suggested this idea, not even the people who studied it."* However, since this was not what we found in the regression analysis, this hypothesis had to be rejected.

4.4.3. High Expected Benefit and the Development of a Social Business

Many respondents indicated that there was no product or service available that met their needs and that they were dissatisfied with what was available. They recognized a broader need based on their unmet needs. When asking about the currently available offerings and the reasons why they did not meet the respondents' expectations, we received many answers that provide evidence of market and governmental failures, with governmental failures mentioned more often. For instance, respondent 62 stated: *"The government falls short in helping our target population, which is stuck in the middle and gets no help. Many cases cannot be placed. [...] We care about these kids a lot and give them what they missed [...] Basically, if something needs to be done, it needs to come from the citizens. The government is rigid and cumbersome."* Respondent 59 said: *"We must deal with the system, whereby the government increasingly withdraws from care and actually leaves care to citizens."* Another (5) said: *"the government system is so*

separate from the business in which we operate. When I look at the civil service culture, it is totally different, totally not goal-oriented or results-oriented in the way we are. And you run into it every time. I do not want to generalize, but the system is structured in such a way that nobody makes a decision or dares to take one." Respondent 4 responded to the question about market and governmental failures as follows: *"When I look at market failure, I think the biggest barrier for companies to do this is the fact that there is a system geared to certain margin structures, and there are quite a few companies that say they really want to pay textiles workers more [...] So you see that the failure of the market is more the failure of the system."* Respondent 10 stated that *"Those [established companies in the market] are way too big. These are mammoth tankers. They cannot maneuver at all."* This variable was significant in our model, confirming H3.

4.4.4 Use Experience and the Development of a Social Business

In the interviews, use experience based on unmet needs came up many times. For instance, Respondent 61 stated: *"I have been making music for almost ten years, and it has really helped me with to deal with difficult things. Since it really helped me and I can use this knowledge with others."* Using knowledge about making music, combined with his experienced unmet needs, helped him to see what others need. Another respondent (131) said: *"Eight years ago, I became unemployed. The bureaucracy I had to deal with was extreme. Getting through the system was hard for me, which made me realize: If I have difficulties with this, how would newcomers feel who do not understand the language."* This respondent's business resolves around his knowledge of the bureaucracy and red tape. Respondent 58 said: *"I thought, I had so many visits to the hospitals and examinations that there had to be something that would make it easier for me and for others."* Here, we see that use experience can address the needs and wants of the target market. Use experience was almost significant in the model as well, therefore we found partial support for H4.

4.4.5 Product-related Knowledge and the Development of a Social Business

Product-related knowledge was insignificant in this model. We did receive some examples in the interviews. Respondent 4 indicated that *"I make a lot of clothing myself, which gives me a head start. I noticed in conversations with for example designers. I know how they use the product and how they design it into a garment, so that helps me. As a result, I also know how to recognize properties of the*

materials and also gauge your target group's wishes." We found that prior knowledge was a key contributor to the recognition of the respondents' business ideas. For instance, Respondent 128 stated: *"I have a background in sports. I knew I needed to do something with this."* Likewise, for Respondent 131, *"the previous experience with setting up other companies have helped."* However, this was not found when entering the control variables entrepreneurial experience in the regression model.

4.5.6 Control Variables and the Development of a Social Business

Social vision was significant in this model, as expected. All the entrepreneurs were in business to create social value, which was also one of the selection criteria. The rest of the control variables were not included, because adding them made the model worse –the adjusted R² went from 0.35% to 0.33%. For a detailed overview, see Table 9 in the Appendix. We entered the control variables independently from each other. All the variables influence, except social vision, was negative.

4.5 Discussion

We found that the sample social entrepreneurs displayed a few lead user characteristics and did come up with solutions that have created social value. We found that unmet needs were a key aspect of these nascent entrepreneurs starting a social business. In the literature on prosocial orientations, there are clear links between having personal unmet needs, prosocial orientations, and social entrepreneurship (Hahn & Ince, 2016; Renko, 2013; Yitshaki & Kropp, 2016). Personal unmet needs can spur opportunity recognition in social entrepreneurs (Asarkaya & Keles Taysir, 2019; Barendsen & Gardner, 2004). Our interview data confirmed this. This relates to the lead user-innovation literature, especially since unmet needs are a trigger of lead user characteristics (von Hippel, 2005). Although our interview data clearly indicated that personal unmet needs influenced these entrepreneurs, we found no evidence for this in the regression analyses. We found that the other lead user characteristics (ahead of trend and expected benefits) take over the predictive power of personal unmet needs when these were added in the model. We did see a clear link between personal unmet needs and the developed solutions and business. A partial reason why we did not find this in the regression analysis' results may be the choice of measure; we used a binary question, which resulted in unequal groups (yes or no). Thus, there is little variation and little predictive power. A multiple-

item construct based on a Likert scale will yield different results and will perhaps provide more insights into how personal unmet needs trigger lead user-innovators into starting a social business.

The interview data provided some preliminary indications for the reason these latent entrepreneurs experience personal unmet needs. They indicated that this was due to market or governmental failures; these cause unmet needs, which trigger lead user-innovators' prosocial orientations (Hienert, 2006; Yitshaki & Kropp, 2016). Further, these failures create room for lead user-based social enterprises to play complementary roles in instances where these forces fall short. Since users are at the forefront of key market trends overlooked by established manufacturers, commercializing their innovations is as a very valuable source to overcome social unmet needs. This research has provided insights into the triggers that motivate individuals to become entrepreneurs. Market failure occurs when markets fail to efficiently allocate resources (Alvarez et al., 2015; Bator, 1958). While governments remain the most important actor to ensure societal wealth, owing to budget cuts, they have withdrawn or are withdrawing from the social domain. Such failures occur when a government's interventions in the economy or its attempts to correct market failures are unsuccessful and result in inefficient and/or exclusive allocation of resources (Le Grand, 1991; Santos, 2012; Wolf, 1979). Market and governmental failures are at the forefront of opportunity recognition in social entrepreneurship (Austin et al., 2006; Defourny & Nyssens, 2010) and user innovation (von Hippel et al., 2011). These failures are key causes of unmet social needs, and social entrepreneurs (Alter, 2007) and user-innovators (von Hippel, 2005) act on these failure so as to attain social wealth. Unsurprisingly, governmental failure is mentioned more often. Since social entrepreneurs are more active in the public domain, governmental failure affects them sooner.

Ahead of trend was insignificant in this sample. A possible explanation may be that this sample contains nascent social entrepreneurs, and the more innovative an individual, the less likely they are to start a business. This can be explained by the difference between being product-oriented and being market-oriented (Slater & Narver, 1999). This seems true for this sample, especially considering that the ahead of trend questions related to developing and adopting new technologies. The entrepreneurs consider themselves very innovative in general, as per the interview data. A possible explanation here is variability in innovation strength (Douglas & Prentice, 2019), in which other factors substitute for innovation strength. Bacq and Janssen (2011), who found that early-stage social

entrepreneurs consider themselves more innovative than established social entrepreneurs, which – considering the nascent aspect of this sample – may also have influenced our findings. Another explanation is the operationalization of ahead of trend, which may be a less appropriate or applicable in the social domain. The work on disruptive innovation by, but not limited to, Hart and Christensen (2002) and Christensen, Baumann, Ruggles, & Sadtler (2006) may help to attune the ahead of trend component. However, since being ahead of trend relates to commercial attractiveness (Franke et al., 2006), it will be interesting to find out how this relates to innovations commercialized by lead user-based social entrepreneurs

Expected benefits derive from dissatisfaction and unmet needs. This component is linked to innovation likelihood (Franke et al., 2006). Since lead users have deep use related knowledge, they are able to experience that current market offerings do not meet their needs, or feel dissatisfied before others do (Faullant et al., 2012; Raasch et al., 2008). This high problem pressure results in creative solutions (Lettl 2005). This also recurred in the interviews, which help to explain why use experience was almost significant, but product-related knowledge was not. Use experience is gained from frequent use of products or services, while product-related knowledge concerns the materials and technologies used in the market (Luthje 2004). We operationalized use experience to measure product and service experiences and how these translate into seeing commercialization opportunities, while product-related knowledge was more generally measured on the social issue in relation to the business idea and relates to technical aspects.

Of the control variables, only social vision was significant, as expected in this sample based on the selection criteria we used. Gender, education, and previous entrepreneurial experience did not enhance the model's predictive power. Entrepreneurial experience helps with commercial thinking as well as the prelaunch and overall success of a business (Baron & Ensley, 2006; Hopp & Sonderegger, 2015; Lee & Battilana, 2013). We found no indication that this influenced starting a social business, since the model's predictive power diminished. A possible explanation for this is that this sample consisted of nascent entrepreneurs of which most did not yet start up; thus, there were no effects to measure yet. When we redo the survey in a few years, we expect this result to be different. Another explanation may be that the sample entrepreneurs were primarily driven by a (personal) unmet social need that they found so important that they did not relate it to their previous entrepreneurial endeavors or education.

Based on our results, we will now summarize the findings of our hypotheses.

Table 10. A Summary of Empirical Evidence for the Hypotheses

Summary Hypotheses		
H1	Personal unmet needs positively influence the development of a social business	Partially supported based on the interview data
H2	Being ahead of a market trend positively influences the development of a social business	Not supported
H3	Having high expected benefit regarding a solution positively influences the development of a social business	Supported
H4	Use experience positively influences the development of a social business	Partially supported based on the interview data
H5	Product-related knowledge positively influences the development of a social business	Rejected

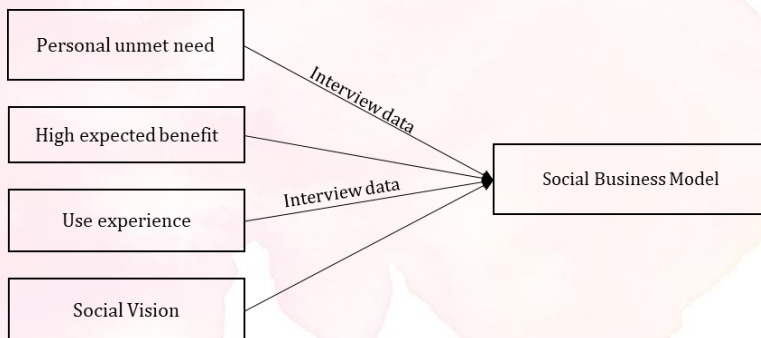


Figure 11. Model Based on Findings

4.5.1 Limitations and Future Research Directions

This study has limitations. Our research is based on a small sample of nascent entrepreneurs in the Netherlands and on cross-sectional data. These limitations constrain our study's generalizability, and we trust that future studies will include a larger number of participants. Likewise, the operationalization of the lead user measure could have been adapted to a social context more, which may have influenced this study's content, constructs, and external validity (Zeller, Zeller, & Carmines, 1980). By measuring unmet needs in the form of a binary question, we did not capture this in the best possible way. When testing whether the residuals were normally divided in this model, this assumption was not met. This can be due to the fact that the data are positively skewed. These limitations may provide fruitful avenues to guide future research. Similarly, future research should establish how the social entrepreneurs' prior experience, specifically entrepreneurial experience, contributes to starting a social business. Likewise, future research should examine how lead user-based social entrepreneurs differ from other social entrepreneurs regarding innovation and overall venture success.

4.6 Conclusion

We studied the influence of personal unmet need, as well as the lead user characteristics on starting a social business. We have shed light on the influence of personal unmet needs in relation to a social problem, as well as lead user characteristics, in starting a social business. Being in a specific situation that causes an unmet need and dissatisfaction have, besides having a strong social vision, proven to influence starting a social business. We found that personal unmet needs reside in market and government failures, which create room for social enterprises to play complementary roles in instances where these forces fall short. These findings are highly relevant in explaining alternative paths to starting a business and deepen understanding of the links between specific life events, innovation, and starting a business. From the literature on lead users, we know that lead user-innovators are active in various domains (Baldwin et al., 2006; de Jong, 2010; Shah et al., 2012; Shah & Tripsas, 2007). We now know they better understand how various lead user characteristics relate to the social domain. Insights from the (lead) user innovation literature are a valuable addition to the field of social entrepreneurship, especially in dynamic and fast-changing environments that are shifting toward a more customer-oriented paradigm, such as the social domain. In such instances these characteristics may

serve as a proxy for social innovation and entrepreneurship. It is crucial to use these insights to stimulate technology and business development capacities that will lead to sustainable socioeconomic development in the social domain.

We have contributed to research into social entrepreneurial motivations. Researchers have called for work that empirically addresses the motivations of social entrepreneurs in starting their business (Yitshaki & Kropp, 2016) and the antecedents of social entrepreneurship activities in greater detail (Hoogendoorn et al., 2010). Others have suggested research into the specific knowledge endowments that social entrepreneurs use in starting their businesses (Short et al., 2009). By using the lead user characteristics and specifically addressing having personal unmet needs, we shed light on the antecedents of starting a social business. Likewise, by adapting lead user characteristics to the social domain, we have done the groundwork to empirically examine lead user-based social entrepreneurship. Much remains unknown about how social entrepreneurs recognize opportunities, and whether and how this process differs to those of other entrepreneur types (Robinson, 2006). Thus, studying lead users is interesting, since they start developing solutions for their unmet needs. This may constitute a good basis for further opportunity development and application in the social domain on a broader scale (Shah & Tripsas, 2007). Incorporating lead user innovation information in the social domain is highly relevant for programs that focus on entrepreneurship support, since it contributes to developing niche markets characterized by market and governmental failures. These insights into novel ways to create social value and empower individuals to start businesses will be highly valuable to society.

Appendix

Model I

Table 11. Stepwise Multiple-regression Model 1: Social Business Model

Coefficients ^a						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	3.98	0.13		31.15	0.00
	Unmet needs	0.28	0.15	0.20	1.91	0.06
2	(Constant)	1.62	0.44		3.71	0.00
	Unmet needs	0.00	0.14	0.00	0.01	1.00
	Ahead of trend	-0.03	0.10	-0.04	-0.34	0.73
	Expected benefits	0.41	0.11	0.39	3.65	0.00
	Use experience	0.18	0.10	0.21	1.89	0.06
	Product-related knowledge	0.11	0.11	0.12	1.05	0.30
3	(Constant)	0.88	0.47		1.88	0.06
	Unmet needs	0.06	0.14	0.04	0.41	0.69
	Ahead of trend	-0.05	0.09	-0.05	-0.50	0.62

	Expected benefits	0.30	0.11	0.29	2.74	0.01
	Use experience	0.14	0.09	0.16	1.51	0.13
	Product-related knowledge	0.03	0.10	0.03	0.30	0.77
	Social vision	0.39	0.12	0.34	3.31	0.00
4	(Constant)	0.66	0.54		1.22	0.23
	Unmet needs	0.06	0.14	0.04	0.42	0.67
	Ahead of trend	-0.03	0.10	-0.03	-0.27	0.78
	Expected benefits	0.29	0.12	0.28	2.54	0.01
	Use experience	0.14	0.10	0.16	1.50	0.14
	Product-related knowledge	0.02	0.10	0.03	0.23	0.82
	Social vision	0.38	0.12	0.33	3.11	0.00
	Gender	-0.04	0.11	-0.04	-0.39	0.70
	Education	0.08	0.09	0.08	0.87	0.39
	Already established	0.04	0.11	0.03	0.34	0.74
	Started before	-0.08	0.11	-0.06	-0.70	0.48

a. Dependent variable: social business model.

Model II

Table 12. Stepwise Multiple-regression Model 2: Business Idea Based on Personal Experience with a Social or an Ecological Problem

Coefficients ^a						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	1.29	0.47		2.76	0.01
	Ahead of trend	0.09	0.11	0.08	0.84	0.40
	Expected benefits	0.48	0.12	0.37	4.00	0.00
	Use experience	0.23	0.09	0.22	2.47	0.01
	Product-related knowledge	0.01	0.11	0.01	0.06	0.95
2	(Constant)	0.81	0.53		1.54	0.13
	Ahead of trend	0.08	0.10	0.07	0.76	0.45
	Expected benefits	0.41	0.12	0.32	3.38	0.00
	Use experience	0.22	0.09	0.20	2.29	0.02
	Product-related knowledge	-0.04	0.11	-0.04	-0.39	0.70

	Social vision	0.24	0.13	0.18	1.87	0.06
3	(Constant)	0.81	0.55		1.47	0.14
	Ahead of trend	0.09	0.11	0.08	0.84	0.41
	Expected benefits	0.43	0.13	0.33	3.36	0.00
	Use experience	0.19	0.10	0.18	1.92	0.06
	Product-related knowledge	-0.05	0.12	-0.04	-0.41	0.68
	Social vision	0.24	0.13	0.17	1.78	0.08
	Gender	0.06	0.13	0.04	0.47	0.64
	Education	0.00	0.07	0.00	-0.04	0.97
	Already established	0.11	0.13	0.07	0.87	0.39

	Started before	-0.09	0.13	-0.06	-0.71	0.48
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Notes: ^a Dependent variable: My business idea reflects my personal experience of a social/ecological problem. Please indicate to what extent you agree or disagree with the following statements.



Chapter 5: (Social) Entrepreneurship by Refugees: An Explorative Study of Refugees' Networks and How Previous Experiences, Personal Unmet Needs, and Unique Life Experiences Influence their Prosocial Orientations¹²

Summary:

In a unique sample of 36 nascent refugee entrepreneurs, we examine the influences of personal unmet needs and prior knowledge on (social) opportunity recognition. Based on the prosocial, social entrepreneurship, and user entrepreneurship literatures, we link prior experience and personal unmet needs to prosocial entrepreneurial orientations. Owing to the sample entrepreneurs' personal experiences, this sample is well-suited to study the influence of these variables on their business ideas. We also examine how these entrepreneurs utilize their networks and the types of barriers they experience in doing so, we answer the following research questions: To what extent do personal experiences and prior knowledge influence refugees in becoming (social) entrepreneurs in a host country, 2) what barriers can we detect, and 3) what are their networks' roles in this? We use a case study design with a mixed-method approach, combining in-depth interviews (n = 7) and descriptive survey data (n = 36). We collected data from two entrepreneurial training programs in the Netherlands resulting in a unique sample to study personal experience and prior knowledge, as well as the barriers and networks in the host country. We find that prior knowledge, personal unmet needs, and specific prosocial orientations influence how a (social) entrepreneurial opportunity is recognized and perceived. In contrast to what was expected, prior knowledge hinders these refugees in starting up their businesses. We also find substantial barriers that hinder refugees from acting on their business ideas, such as language barriers, lack of knowledge of the cultural, legal, and political context as well as a lack of knowledge about the institutional system. Refugees often have little knowledge about their network, which they should utilize in establishing their business. We find that many refugees feel pushed into entrepreneurship and may be considered as necessity-driven entrepreneurs. When this happens, this influences the growth potential and success of these (nascent) ventures over

¹² A previous version of this chapter has been presented at the 2018 International Conference for Social Entrepreneurship and Innovation, May 13-14, in London and the 2018 HTSF Conference, June, Enschede

time. Our research contributes to the literature on refugee entrepreneurship by examining the drivers and barriers that entrepreneurial refugees experience. Stimulating refugee entrepreneurship may increase integration, and can positively affect a host country's economy. It also increases refugee self-reliance. Our research also makes a practical contribution by providing a better understanding of how to empower and support (nascent) refugee entrepreneurs, and refugees in general, in integrating into their host country.

Keywords: —personal unmet needs, prior experience, refugee entrepreneurship, social entrepreneurship

5.1 Introduction

“When we fled from Syria, it was a long, difficult journey. Some of the people who joined our group had not traveled out of their village before. I knew how to do things... simple things like use an ATM, transfer money, set up group emails or texts to send messages home. More and more, they started looking to me for advice about which way to go and how to contact family back home. I've never been a leader before, but I felt that people needed me, and I can help them. Now that I am in the Netherlands, I want to help more people.” (refugee)

Statements like this are far from unusual. According to the UNHCR, we are witnessing the largest displacement of people since World War II. By the end of 2016, approximately 65.5 million people around the world were forced from their homes owing to conflicts, oppression, persecution, natural disasters, and demographic revolutions. Of this, approximately 22.5 million are refugees (UNHCR, 2016), and it is unlikely that these numbers will decline soon (McAuliffe & Ruhs, 2017; Nayir, 2019). Refugees want to become independent as swiftly as possible and to build a new safe future in their host country (Wauters & Lambrecht, 2006, 2008). Experts indicate that quick access to the labor market increases the long-term integration of the refugees into a host country (Konle-Siedl & Bolits, 2016, p. 9). However, refugees experience several barriers such as language, legal, and cultural barriers when they arrive at a safer destination (Wauters & Lambrecht, 2006, 2008). Many arrive alone and often do not have a strong network to rely or build on. These aspects hinder the integration of refugees into a host country and influence the extent to which they can find employment (European Commission, 2018; Marchand & Dijkhuizen, 2018; Meister & Mauer, 2018). Entrepreneurship is a way to integrate and may be an alternative when it is hard or impossible to find a job through the labor market

(Wauters & Lambrecht, 2006). While there is much entrepreneurial potential among refugees (Wright et al., 2009), this potential is seldom developed.

There has been a call for a better understanding of refugees' entrepreneurial processes and for more knowledge about the barriers to and drivers of this (Wauters & Lambrecht, 2008). We respond to this call by exploring various aspects of (nascent) refugee entrepreneurs. We focus on how personal unmet needs and prior knowledge influence their prosocial orientations, as well as the influence of a host country's network in starting their businesses. The context in which refugee entrepreneurship takes place offers unique insights into how personal unmet needs and prior knowledge influence opportunity recognition in a host country. Personal unmet needs owing to hardship or radical changes in one's life can spur an individual's prosocial orientation. Such specific life events, in combination with prior knowledge, may explain why certain individuals are motivated to become social entrepreneurs (Cohen & Peachey, 2015; Hill, Kothari, & Shea, 2010; Nga & Shamuganathan, 2010; Shepherd & Patzelt, 2018). We investigate this in more depth. Our research questions are: *To what extent do personal experiences and prior knowledge influence refugees in becoming (social) entrepreneurs in a host country, 2) what barriers can we detect, and 3) what are their networks' roles in this?* We use well-established theoretical constructs and examine whether they can be contextualized to the setting of refugee entrepreneurship, exploring the relationship between these constructs, contexts, and social value creation. We seek to advance the literature on refugee entrepreneurship by examining the factors that influence these entrepreneurs in starting businesses. We trust that these insights result in support programs to empower refugees in starting businesses in their host countries.

We start by presenting the theoretical background that underpins this research and develop a model of the expected relationships between personal experiences, prior knowledge, networks, and social entrepreneurship. We then explore these relationships using an explorative case study design with a mixed-method approach. We close with a discussion of our findings, limitations, and suggestions for future research.

5.2 Theoretical Background

While *immigrant entrepreneurship* has been researched extensively (Hunt, 2011; Lofstrom, 2002; Rath & Kloosterman, 2000), very little research has focused on *refugee-based entrepreneurship* (Fong et al., 2007; Lyon, Sepulveda, & Syrett,

2007; Marchand & Dijkhuizen, 2018; Wauters & Lambrecht, 2006, 2008). Since refugees form a distinct group that has different attributes than a group of immigrants, treating them as a subgroup of immigrant entrepreneurship will yield biased results (Bizri, 2017; Wauters & Lambrecht, 2006, 2008). Refugees differ to immigrants in the social capital they bring to their new country, and have a different mindset that focuses on survival and starting over (Bizri, 2017).

Very few studies have focused on entrepreneurial refugees in a host country (Nayır, 2019). Culture and disadvantage theories have helped to explain why refugees wish to become entrepreneurs. Culture theory states that people from an entrepreneurial culture are more likely to take part in enterprises when they settle in a new country (Johnson, 2000). Disadvantage theory indicates that when refugees have trouble accessing the labor market, entrepreneurship may be a valuable alternative. When refugees face discrimination in a non-ethnic labor market, they start businesses to support themselves instead (Bizri, 2017; Johnson, 2000; Wauters & Lambrecht, 2008). Yet little is known about the conditions that enable refugees to identify and act on entrepreneurial opportunities. This opens opportunities for research, since refugee entrepreneurship holds several advantages (Legrain, 2016). Stimulating refugee entrepreneurship may increase integration, and can positively affect a host country's economy (Lee, 2018; Wauters & Lambrecht, 2008). It also increases refugee self-reliance (Lee, 2018). According to Bizri (2017, p. 2), compared to immigrants, refugees have more complex entrepreneurial attributes, since they combine "distinct cognitive, affective, behavioral and social characteristics." Further, people who are exposed to more cultures have an advantage as innovators, because they can approach problems from multiple perspectives (Legrain, 2016). Wauters and Lambrecht (2006) found that three-quarters of their sample of refugees in Belgium considered self-employment to be a valuable option to pursue, which indicates that refugees' entrepreneurial potential is under-utilized. Thus, there is a need for research into the drivers of and barriers to refugees starting their own businesses.

5.2.1 Prior Knowledge

Entrepreneurship starts with an idea – the recognition of an opportunity that is utilized (Shane & Venkataraman, 2000). For refugees, it has been found that awareness of exclusion shapes latent refugee entrepreneurs' contextual interpretations, and – in turn – how they identify and pursue opportunities. Entrepreneurial cognition theory helps us to understand why certain individuals

recognize opportunities, while others do not. Entrepreneurial cognition has been defined as “the knowledge structures that people use to make assessments, judgements, or decisions involving opportunity evaluation, venture creation, and growth.” (Mitchell et al., 2002, p. 97). Thus, entrepreneurial cognition theory can be used to provide insights into why and how refugees recognize opportunities in their host countries. Key factors are the influences of prior knowledge, prior learning, and previous entrepreneurial experiences that positively influence the likelihood of an individual becoming an entrepreneur (Dimov, 2007; Shane, 2000).

Prior knowledge can be understood as “the unique information a person has on a particular topic” and enables the recognition of particular opportunities (Shane, 2000; Shepherd & Patzelt, 2018, p. 8; Venkataraman, 1997). It provides the basis to interpret and use new information based on cognitive processes of structural alignment. Prior knowledge that fits a context is a key resource that may result in competitive advantages for (nascent) organizations (Alvarez & Busenitz, 2001; Grégoire, Barr, & Shepherd, 2010). Differences in individual prior knowledge can be explained by education, life experiences, and cultural and social backgrounds (Shepherd & Patzelt, 2018). According to Baron (2006, 2007); Baron and Ensley (2006), latent entrepreneurs identify business opportunities when they use cognitive frameworks to connect the dots between events or trends; thus, they detect patterns that serve as new business ideas. In such processes, unique life experiences play an important role, because they serve as templates that can be used. New life experiences can occur owing to exogenous events, which can result in new knowledge that can trigger opportunity recognition (Grégoire et al., 2010; Shepherd & Patzelt, 2018). Personal experiences and personality characteristics influence how a refugee makes meaning of their new situation and places them in a position to identify unique opportunities that others may not recognize (Griffin-El & Olabisi, 2017). Prior knowledge helps to explain why certain individuals are more prone to entrepreneurship than others as well as why certain individuals develop prosocial orientations (Shepherd & Patzelt, 2018).

5.2.2 Prosocial Orientations

Motivations are essential for transforming entrepreneurial intention into action (Yitshaki & Kropp, 2016, p. 546). A founder’s personal motivations often help to establish an organization and to determine the value it creates (Bacq & Janssen, 2011; Short et al., 2009). Prosocial motivation “is the desire to protect and

promote the well-being of others and it is distinct from altruism and independent of self-interested motivations” (Grant & Berg, 2012, p. 28). Prosocial orientations help to explain why individuals start a business to create social value. When an organization’s primary objective is to create social value, it is a *social enterprise*. Social entrepreneurship is when entrepreneurial activities address societal pains and create social wealth for organizations’ customers (Lepoutre et al., 2013; Zahra et al., 2009). Several factors contribute to prosocial orientations of nascent entrepreneurs, and can even trigger their opportunity recognition. Experiencing a psychological threat, altruism, sympathy, and empathy trigger entrepreneurial motivations and opportunity recognition so as to subsequently address and solve social problems (Shepherd & Patzelt, 2018). Other-regarding values such as the will to help others, is a motivational reason to become an (social) entrepreneur (Miller et al., 2012; Stevens et al., 2015). Other prosocial triggers are caring for others, feeling that it’s the right thing to do to help others, or that helping makes one feel good about oneself (Renko, 2013). Related to this is the research stream that examines the influences of empathy and compassion on social entrepreneurial intentions.

Empathy’s influences on social entrepreneurship, prosocial orientations, and startup intentions have been researched by Bacq and Alt (2018); Dees (1998); Hockerts (2017); Yitshaki and Kropp (2016). Empathy influences how people respond to the experiences of others, which influences their social entrepreneurial feelings, self-efficacy, and social worth (Bacq & Alt, 2018). Miller et al. (2012, p. 620) argued that social entrepreneurs start businesses based on compassion for others, with compassion acting as a motivator of cognitive and affective processes. These processes increase integrative thinking, prosocial judgments of the costs and benefits relating to social entrepreneurship, and the commitment to alleviate others’ suffering. Compassion and empathy result in social entrepreneurs feeling compelled to give back to society and to ease social pains. Another factor that increases compassion and empathy is that social entrepreneurs may relate to a social problem because they have experienced the difficulties themselves or know others who have (Belz & Binder, 2017; Yitshaki & Kropp, 2016). In these instances, *personal unmet needs* trigger the prosocial orientations. Similarly, Germak and Robinson (2014) found that personal fulfillment, helping society, a non-monetary focus, an achievement orientation, and being close to a social problem result in higher social entrepreneurial motivations; yet we do not know whether these triggers also influence refugees in starting (social) businesses.

Authors who have solely focused on empathy and compassion as drivers of social entrepreneurship have not specified how changes in external events influence an individual at the personal level, nor have they elaborated or distilled what the consequences relating to one's prosocial orientation are. We need alternative explanations and more in-depth knowledge into why previous – personal or professional – experiences influence individuals' prosocial orientations, as well as how situational empathy affects these (Bacq & Alt, 2018; Germak & Robinson, 2014). Adding personal unmet needs, as a trigger of prosocial orientation, may bridge this gap.

5.2.3 Personal Unmet Needs

Specific life events may influence prosocial entrepreneurial behaviors (Yitshaki & Kropp, 2016). Thus, an entrepreneur's personal circumstances can form the basis for venture creation (Hahn & Ince, 2016). Personal unmet needs owing to hardship or radical changes in one's life can spur prosocial opportunity recognition. The knowledge accumulated in solving personal hardships, can then be utilized to help people who experience the same (Asarkaya & Keles Taysir, 2019; Barendsen & Gardner, 2004). First-hand experiences are important for the recognition of a social problem and can trigger social entrepreneurial intentions (Belz & Binder, 2017). Barendsen and Gardner (2004, pp. 44-45) found that parents and caregivers' early life traumas as well as the political and/or social engagement can trigger a social entrepreneurial mindset, providing clear indications of a link between personal unmet needs and social entrepreneurial opportunity recognition. Specific life events, in combination with prior knowledge, may also explain why certain individuals are motivated to become socially oriented entrepreneurs (Cohen & Peachey, 2015; Hill et al., 2010; Nga & Shamuganathan, 2010; Shepherd & Patzelt, 2018). This closely relates to the literature on end-user innovation and entrepreneurship, where personal unmet needs trigger innovation and entrepreneurship (Shah & Tripsas, 2007, 2012). Since the local and use-specific knowledge of a context are central to how users recognize innovation and commercialization opportunities (Baldwin et al., 2006; Lüthje et al., 2005), this research stream can also advance our understanding of refugee entrepreneurship.

The literature on lead user entrepreneurship informs us that personal unmet needs spark an individuals' opportunity recognition; thus, they become entrepreneurs solely owing to their personal experiences (Hienerth, 2006; Shah & Tripsas, 2007, 2012). The solutions developed by end-users are for themselves

or for individuals they relate to privately or professionally, such as family or community members. The triggers are often exogenous events, such as market and governmental failures, or changes to their personal circumstances that resulted in unmet needs. Users with certain characteristics have been found to develop solutions to their unmet needs (von Hippel, 1988, 2005). These users solve their unmet needs by applying use-specific and expert knowledge to these situations, creating novel applications for existing or newly develop products and services (von Hippel, 2005; von Hippel et al., 2011). It has been found that personal experience with health-related problems helps one to understand the demand and opportunities for entrepreneurship (Shepherd & Patzelt, 2018). There is evidence from the literature on patients-as-innovators that patients create and commercialize products and services of immense social value based on their personal unmet needs (Conway & Steward, 2009; Oliveira et al., 2015; Wood et al., 2013). The influence of personal unmet need may be especially apparent in on refugees. However, research is needed into personal unmet needs' effects on entrepreneurial refugees.

5.2.4 Networks

Starting a business is difficult. Stinchcombe (1965) described the liability of newness organizations experience when launching. This has three primary elements: learning about new roles that result in economic inefficiencies, a lack of trust, and a lack of a customer portfolio. This is also the case for refugees. Access to a network is a key contributor to how nascent entrepreneurs' success influence how they recognize opportunities (Aldrich & Zimmer, 1986; Stuart & Sorenson, 2007) and how the liability of newness can be reduced (Stinchcombe, 1965). Personal networks are crucial to gathering the needed resources to establish an enterprise (Ostgaard & Birley, 1996). For nascent refugee entrepreneurs, it is often hard to gain access to available support systems. They have little knowledge of the institutional system, regulations, and compliance requirements (Johnson, 2000). There are severe language and cultural barriers, and their skills are often non-transferrable (Bizri, 2017; Johnson, 2000). The resources and social capital for company formation and growth are often lacking. Knowledge about the institutional system, such as taxes and regulations, and the national or regional culture is often missing (Nayır, 2019). Even when refugees manage to start businesses, these factors have been found to make it hard to understand the growth strategies needed to sustain them over time (Bizri, 2017; Fong et al., 2007; Lyon et al., 2007; Wauters & Lambrecht, 2008). Unsurprisingly,

the number of self-employed refugees is therefore very low (Wauters & Lambrecht, 2006).

This literature described provides the building blocks for the following model, see Figure. 12 on the next page.

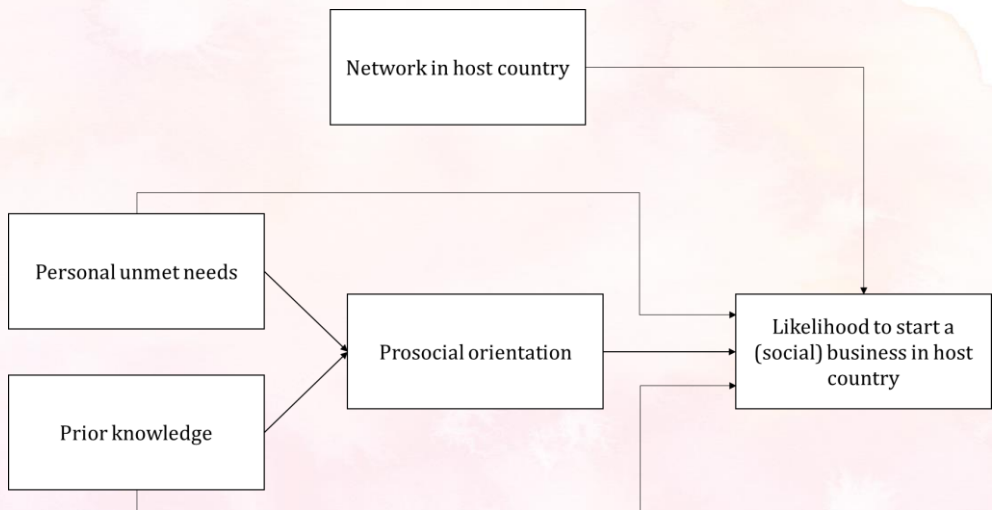


Figure 12. Figure 3 Conceptual Model Chapter 5: (Social) Refugee Entrepreneurship

5.3 Method

5.3.1 Case Study

To gain a better understanding of (social) entrepreneurial refugees, we used participants from two business (pre-)incubators in the Netherlands. This research setting provided a unique opportunity to examine nascent refugee entrepreneurs and how their prior knowledge, personal unmet needs shaped their entrepreneurial aspirations in the host country. We used data from two entrepreneurial training programs, both in the Netherlands. One is focused on refugees, and the other on immigrant entrepreneurs. These training programs are open to all business ideas of refugees who wish to become entrepreneurs and do not specifically focus on social business ideas.

We used an explorative case study design with a mixed-method approach (Creswell & Clark, 2007; Tashakkori & Teddlie, 1998). There has been very little research on (nascent) refugee entrepreneurship and, thus, little knowledge on

the cause-and-effect relationships, the variables that influence refugee entrepreneurship, and refugee entrepreneurship's contextual boundaries. Mixed methods allow for a better understanding of a problem at hand, and the data provides a more complete picture (Creswell & Clark, 2007). The explorative nature and the subject of our study justify the case study method (Gerring, 2007; Swanborn, 2013; Yin, 2009). Our mixed methods included qualitative (in-depth interviews) and descriptive quantitative data (survey research).

5.3.2 Sampling and Sample Size

Selection took place based on the nascent refugee entrepreneurs' business ideas and their language skills (Dutch or English). An independent commission selected the participants of the refugee-oriented training program in Enschede. Since this program's capacity is 50 refugees and only 27 registered, all who could speak Dutch or English to some extent were selected. Notably, all the sample refugees had been granted asylum and are *status holders* – asylum seekers who are recognized as refugees are granted refugee status; they are also called *license holders*. Status holders have a residence permit and can undergo education and can work in the Netherlands.

The program started with 25 participants with a five-week pre-incubator in October 2017. The actual incubator then started with 19 participants, who were divided into three tracks based on their previous experience (entrepreneurship for well-consolidated markets, experienced entrepreneurship, and creative entrepreneurship). The incubator ran from January 15, 2018 to June 1, 2018. All 25 participants received the questionnaire at the start of the program. However, some participants dropped out in week one. Of the total sample, 19 completed the questionnaire, resulting in a 76% response rate. Round 2 of the pre-incubator started in June 2018, with 12 refugees participating. Of this group, eight completed the questionnaire, resulting in a 66.7% response rate. We also distributed our survey to another entrepreneurial training program for immigrants in Amsterdam. Although here the group was larger ($n = 60$), the response rate was much lower (15%) and contained all types of immigrants. After adding these nine refugee respondents, our sample size was $n = 36$.

5.3.3 Measures

We developed our survey based on validated scales from other scholars as well as self-developed questions. For the validated scales, we sought to keep the

authors' original answering options; thus, most items could be answered along a five-point Likert scale (between strongly disagree to strongly agree). We also asked open-ended questions. If needed, we altered a question to better fit our context. The survey was administered at the start of the program.

General information: We asked s about their education level; their gender and age, and asked to describe their business idea.

Prior knowledge: We asked whether the respondent had started a business before and, if so, how many; whether they were still in the idea phase; and about their business and their network.

Personal unmet needs: We used two measures to assess personal unmet needs. We first asked a yes or no question: Is this product or service based on an unmet need you have experienced? In question 2, we developed a measure based on the lead user literature (Belz & Baumbach, 2010; Franke & Shah, 2003; Franke et al., 2006; Lilien et al., 2002). The following five-point Likert scale items were included: 1) I need this product or service and 2) Someone in my inner circle needs this product or service. The Cronbach's alpha for this measure was 0.66, which is acceptable for explorative research (Hair et al., 2016; Peterson, 1994).

Empathy: We measured using two questions, which contained two sub-questions. Personal empathy: The first had the following items: 1) When thinking about socially disadvantaged people, I try to put myself in their shoes; 2) Seeing socially disadvantaged people triggers an emotional response in me; 3) I feel compassion for socially marginalized people; 4) I tend to help people in need; 5) I tend to cooperate; 6) I try to see the world from the other person's point of view; and 7) In confusing situations, I try to find mutual ground with others involved. This scale was self-developed based on the work Hockerts (2017); Olson (2013). This measure's Cronbach's alpha was 0.87.

A second measure that related to how empathy influenced their business model contained four items: 1) My business idea reflects my understanding of the needs of others; 2) My business idea reflects my personal experience of a social/ecological problem; 3) I've designed my business model following my will to help people in need; and 4) My business model has evolved in a way that I can better help to solve the social/ecological problem I am concerned with. This question was self-developed based on Belz and Binder (2017). This measure's Cronbach's alpha was 0.65.

Network: To assess networks, we asked the respondents to indicate which problem areas you encountered the past two months. You can select multiple answers: administrative problems, personnel problems, financial problems, commercial problems, environmental problems, and problems with government (municipality, county, or state). The Cronbach's alpha was 0.548. We also asked: Who would you turn to if you would like to talk about this? You can select multiple answers: 1) family, 2) neighbors, 3) friends and acquaintances, 4) the training program's coach, 5) training program staff, 6) accountant, 7) bank, 8) industry organizations, 9) chamber of commerce, 10) supplier, 11) competitor, 12) municipality, 13) province (county), and 14) state. Finally, we asked the respondents: Who did you talk to about this problem or these problems in the past two months? You can select multiple answers: 1) family, 2) neighbors, 3) friends and acquaintances, 4) the training program's coach, 5) training program staff, 6) accountant, 7) bank, 8) industry organizations, 9) chamber of commerce, 10) supplier, 11) competitor, 12) municipality, 13) province (county), and 14) state.

The survey was translated by an independent translation firm into three languages: Dutch, English, and Arabic. In round 2, the survey was back-translated so as to assess whether the translation was accurate. The translated questionnaire was transferred into LimeSurvey, an online survey tool that can be filled in anonymously.

We used the analysis of this data for descriptive statistics to establish the distribution of characteristics instead of explanatory analysis. We used S SPSS version 25 to generate the data. We used the means, standard deviations, minimum and maximum scores, and with the network questions also the percentages of the counts as our descriptive statistics.

5.3.4 Interviews

We conducted in-depth interviews with the participants to probe their prior knowledge of entrepreneurship, personal unmet needs, and prosocial orientations as well as to probe the information in the questionnaire. We conducted seven interviews with participants of round 1 of the training program who had indicated that a personal unmet need influenced their opportunity recognition. The interviews took place during October and November 2017 before the participants were selected for the incubator tracks. The interviews

took approximately one hour and were transcribed in full. Since one respondent did not want to be recorded, we did not use her quotes.

5.3.5 Cases

Table 13. Case Descriptions of the Entrepreneurs

ID	Gender and age	Case description
ID38	Female	This entrepreneur wants to start a shop that sells cultural products. When moving here from Syria, she missed some of the products she used to use in the kitchen when preparing food. When the war started, she was unable to return to her home country. Further, her experience was that people know little about her culture. She wants to improve understandings of others' cultures by letting her shop be a cultural meeting point where people can attend workshops about different cultures.
ID40	Male, 25	His initial idea was unlocking his home country's cultural heritage for the Dutch by using his web development knowledge. He realized that the Dutch know little about Syria's culture besides foods and wanted to create a platform where people can learn from one another. However, when teaming up in the incubator, he and his partner decided to work on another of his ideas, which is providing the Netherlands' driver's license content into Arabic. For Arabic-speaking individuals, it is hard to get a Dutch driver's license owing to their lack of knowledge about the language, even if they are able to drive.
ID41	Male	Initially this idea started out as a Syrian restaurant, but after some market research, he decided to pursue one of his hobbies, gemstones. He now wants to open a gemstone company with a Dutch partner. His friends and family who are still in Syria will help him by mining and sending the gemstones for a percentage of the profit. When opening a

shop, he wants to hire individuals who are distant to the labor market.

ID42 Male, 39 This entrepreneur wants to open a computer and IT shop, like he had in Syria. Currently he is doing an internship in a computer store where he noticed that mostly the elderly came in with many questions. Unhappy with the service provided to customers, he believes he can do better. His shop will focus on people who have trouble with technologies and devices, such as the elderly. He will also focus on students, because they use technology extensively. Besides selling products, he wants to focus on providing services to people who have little knowledge of how to use certain technology or devices.

ID86 Male, 56 He wants to open a small grocery store that home delivers to the elderly. When he lived in another country, he had a grocery store for 18 years. He noticed that elderly people are often ill or lonely. His shop will deliver as well as be a social meeting point for the elderly. He believes his shop can make elderly people feel better by paying attention to them. He distinguishes his delivery service from other large supermarkets by delivering the same day, on his bike. He will deliver small grocery orders to elderly people. He just wants to do something good for other people and to help them. He really dislikes being unable to do anything and to be sitting at home on welfare. A key reason for his starting a company is that he wants to give back to society. He is safe now and his children are also in school. Being on welfare makes him feel like a beggar.

ID91 Male, 31 This entrepreneur wants to use recycled materials for interior decoration and to help people decorate their homes with recycled materials and furniture. He feels very strongly about the environment, because in his home country there are many environmental issues and pollution. He talked to 14 companies about his idea and used their feedback to improve it. He also wants to give

workshops in schools to get children to understand the importance of the environment and that you can feel good about helping the environment. Because he received asylum in the Netherlands, he feels he needs to contribute to society and give back.

ID92 Male, 30 This entrepreneur set up his bike repair shop during the program. He likes to work on bicycles as a hobby and has worked in a motorcycle repair shop. Thus, he wanted to start a bicycle repair shop. He stated that he already set up three companies and that he could use this experience. Also, he does not want to sit at home – he wants to work.

5.4 Results

5.4.1 General Information

The respondents' mean age was 33 and ranged between 22 and 56. The sample consists of 10 women and 26 men. Most were from Syria (53%), followed by Iran and Palestine (6%), with only a few from Afghanistan, Egypt, Nigeria, or stateless (all 3%). The rest did not want to disclose their nationality. Two respondents indicated that their organization was already established, and 94.4% was in the idea phase. Concerning education, eight respondents had a higher education (22.2%) and 17 (47.2%) an academic education. The refugees often indicated that they had a management or business education, or in the field in which they want to start an enterprise, which could enhance their knowledge of starting an enterprise. However, this can sometimes result in a biased understanding of the de facto education level. We often saw that the educational levels were not comparable to European norms. Further, some did not complete their education because they had to flee, and thus did not have a formal diploma.

5.4.2 Prior Knowledge

Of the respondents, 41.7% indicated that they had started a company before (either in their home country or in the Netherlands), while most (55.6%) had not yet started a company. The mean number of previously started companies was two, ranging from one to five companies. The sample entrepreneurs used their

previous entrepreneurial experience to their advantage in recognizing entrepreneurial opportunities in their host country. We asked for the respondents' previous experience relating to their business idea or the business they wished to start.

ID40: *"I had three businesses actually. [...] It is more easy to start a company in my home country. The Syrian community goes not by research and numbers and percentages and things like that. You just think of it, ask some people, go to the street for an hour or so and a good idea."*

Many respondents copied-and-pasted their business ideas from their home country to the host country.

ID91: *"I wanted to become an entrepreneur because I am new here and I do not have a job. I have a lot of experience with technique and I find bicycles easy. I chose to work with bicycles because I have been working with motorcycles for twelve years and had a shop. I find bicycles easy [...] I already started three companies before."*

Prior knowledge can become a barrier in instances when it is copied-and-pasted without considering the current context. In these instances, it hinders the entrepreneur. One respondent summarized:

ID98: *"I think that for some people that this program, that they were ready at the business and were successful in their country. So, they think they know the methods to succeed. They think they know it. And they are not willing to surrender that past to a new experience. It is a new country, a new country with new rules, with new opportunities. You have to learn again. You have to be a child again. If you are not willing to do that. Many of them already had fifteen or sixteen workers under them. They were very wealthy in their country. So, they think they know how to succeed. But then I think, yes, you have learned to succeed in your society, doing your thing there what is in that society is allowed. Not here. So, you have to learn all over again."*

Our findings indicated a relationship between prior knowledge and the opportunity recognition of the sample entrepreneurs in our sample. All the interviewees had entrepreneurial experience and had had one or more enterprises in their home country. Based on the nascent entrepreneurs' prior entrepreneurial experience and education, they connected events and

knowledge that enables them to pursue an entrepreneurial career to some extent.

Based on the above, we propose:

P1a: Refugees' prior knowledge can positively impact on entrepreneurial opportunity recognition in the host country.

P1b: When not contextually applied, refugees' prior knowledge can hinder entrepreneurial opportunity development in the host country.

5.4.3. Prosocial Orientations

To examine the link between prior knowledge and personal unmet needs in relation to prosocial orientation, we asked about prosocial orientations such as empathy level and empathic business model. The responses to these questions were all above average. For their mean scores, see Table 14 in the Appendix. While the results describe their personal feelings concerning social value creation, they do not describe their socially oriented business models, which indicates that although these nascent entrepreneurs consider themselves to be social and empathic, this did not 'translate' into their business models. Only a few respondents had socially oriented business models and clearly indicated that they wanted to benefit society or to solve social problems. The triggers included:

ID40: *"Because for me the long-term personal goal is to raise up the native community here in the Netherlands. I think there is a lot to do for them. And, yes, whenever you see me working, I am working towards that. Because I am seeing it with my own eyes, the people from my home country are different [in the host country] from what they were back there. Take away the barriers and the wrong thoughts, because there are a lot of wrong thoughts too."*

ID92: *"Yeah, I am very conscious of the environment. In my country, there is a lot of environmental issues. Pollution and devastation. I am very passionate about it. Since I am here and I am so passionate about the environment, I really want to do something about that. [...] Social impact is the most important thing for me. Because when we are talking about people, we are talking about social things. Something that impacts life, that changes people's lives."*

Concerning personal empathy, our respondents reported being influenced by helping others.

ID40: *“Since I got here [I am more socially oriented], I felt that the others really need help. Fleeing my country was essential to become more social. Without that experience of coming here, I do not think like get in to business through that. I want a business that helps other people. No, to be honest, I would be developing business to raise money if I lived in Syria. [Fleeing] changed me. It is still possible to help people and make money.”*

ID92: *“If I am in the position to help other people, yes, I will definitely do that. I think the world goes round based on the fact that you can help other people. I believe in sympathize and empathize with others. It does make me feel good to know that I do something that is actually helping other people [...]. In my country I didn't develop a sense of empathy because of the fact that I am here to seek protection. I knew I could not stay in the country. It is not possible, it is not going to be safe, not for me and not for my family. [...] This made my sense of social impact even greater, because here under protection of another country is somebody else giving you something, and I have to give something back to someone else.”*

We found that the refugees' unique and specific situations influenced their social orientations. In at least two instances, it influenced them to become social entrepreneurs, and it enlarged their prosocial orientations. Thus, we propose:

P2a: Empathy and compassion positively influence refugees' prosocial orientations in the host country.

Although empathy and compassion personally and strongly influenced these nascent entrepreneurs, it mostly did not result in the recognition of socially oriented business opportunities. The social entrepreneurship phenomenon was often not known to the respondents. It is not a specific form of entrepreneurship in their home country, which may explain why they did not utilize it for venture creation.

ID40: *“I do not think it is something common in Syria to be social entrepreneur.”*

ID41: [I am not a social entrepreneur.] *“Because I am a starting a new business, and I am new in Europe, and I do not have a lot of information about.”*

As noted, many refugees are in survival mode and focus solely on becoming independent and earning a living.

ID42: *“I want to work. I do not want me at home. Look, here and here I get fat, both. So, I really want to work, is life. I feel firm on my feet when I work. Social benefit is nothing for me, sorry. I received benefits for four years. Benefit is for people who cannot work. I can actually work.”*

ID86: *“I had a company in Romania before. Now I am here. I cannot do anything. I think it is very annoying. I want to work.”*

Survival reasons and a lack of knowledge about social entrepreneurship may hinder these entrepreneurs in starting social businesses. Thus, we propose:

P2b: A refugee’s survival mode and lack of information about social entrepreneurship negatively influence the recognition of a socially oriented business opportunity.

5.4.4 A Personal Unmet Needs as a Trigger of Prosocial Orientation

We focused on whether having a personal unmet need triggered the opportunity recognition on which the refugees acted, specifically whether it influenced these nascent entrepreneurs’ prosocial orientations. Most answered that their product or service is based on a personal unmet need (see Table 15 in the Appendix). We also asked about this in the interviews.

ID40: *“Just like my other ideas, somehow, it [idea for driver’s licenses] is also based on a personal unmet need, because the new idea is about providing or helping refugees to get their driver’s license. [...] Yes, like for me, I had been a computer guy. A lot of my friends call me and ask me, ‘How can we apply for a driver’s license? What can we do?’ I applied [for a Dutch drivers’ license] but I didn’t get it. [...] I saw an opportunity because of one of my friends calling and there is a need.*

Having a personal need relates closely to the unique life experiences and, therefore, prior knowledge.

ID98: *"I am mostly interested in arts and making things beautiful, so I used two passions [art and the environment] what I like and what I am passionate about."*

Their unique life experiences also made the respondents more socially oriented. This resulted in their being in unique positions to link their experiences to an unmet need. Consider the driver's license example. Since this respondent was in this situation, he was able to recognize an unmet need he and his inner circle experienced. Further, this business idea would never have arisen in his home country. The same was true for ID38: this entrepreneur needed cooking products and realized that others have the same unmet needs. She realized she could bring two cultures together and enhance mutual cultural understanding. Likewise, ID91 was missing specific artwork that met his recycling wishes, which led him to recognize the opportunity for his business. Thus, our findings indicate that a personal unmet need influences nascent entrepreneurs' prosocial orientations and influences how an opportunity is recognized.

For this construct, our interview data contradicted our survey data. The survey data showed that 77.8% of the business ideas was based on a personal unmet need. However, when examining this in greater depth, it turned out that this question was interpreted differently than intended. Many refugees thought that setting up a business to escape unemployment or to stop receiving social welfare was also to overcome a personal unmet need (see Table 16 in the Appendix). Based on these results, we propose:

P3a: Having personal unmet needs positively influence nascent (social) entrepreneurs' prosocial orientations.

P3b: Refugees' personal unmet needs positively influence how they recognize socially oriented business opportunities.

5.4.4. Refugees' Networks

To examine whether refugees experienced barriers when starting their businesses, we asked what their network looked like as well as whether and how they utilize this. We asked whether they encountered problems, and what these were. For the results, see Tables 17-19 in the Appendix. Most of the experienced problems were of the following nature: financial (57.2%), governmental (27.8%), and administrative (16.7%). When the nascent entrepreneurs spoke about their networks and who they would turn to, they spoke about family

(41.7%), friends (44.4%), or the training program's coach (44.4%). Only a few knew how to utilize their network beyond that.

ID40: *"One of my friends works now as a driving instructor, which is very helpful. And also, another friend is a lecturer, an educator, which is also very helpful. [So, you had your network?]*

Yes, somehow, I know some people who can makes this a lot better for the idea I had on my own. So, I thought of bringing all that skills together and coming up with something new."

ID42: *"This training program helped me to make new friends. [...] [Has it enabled you to know who to ask for help?] Yes, as an example, I have a network now. If I need something, I am right going to the trainer. Maybe he does not know, but he can help me and say, if you want to go just go there as an example. [Did you not have a network before?] No, I did not. I only had Google."*

Some were more proactive, using the training program as a stepping stone. The program made the refugees' aware of and vastly enlarged their network. However, formal institutions – such as the chamber of commerce, industry organizations, or banks were not contacted. Cultural aspects, such as how things are done in their home country, may partly explain this. A respondent indicated that, in his home country, it is normal to open a location, set it up, and furnish it. If it looks good enough, customers will come. Thus, customer value is considered less. Market research and customer awareness were mostly not known to them. This is a good example of how entrepreneurship differs per country and culture.

ID42: *"Previously I did not think much about the basis, about the plans. I only went with my idea, because I am convinced that this is going. But with this [training program], I have learned how am I going to analyze how am I going. [...] What ingredients do I need for my pie? I know the profession, but I need clients. I need something special. Special offer from other stores for my customers. To get customers."*

ID41: *"It was my first experience in my life I did research life from the people, life from the street. And like talking to different shops. It was a good experience for me."*

Cultural differences influenced how opportunities were perceived and acted on, and also how a network was utilized. These results indicate that many latent refugees' entrepreneurs did not have a network prior to entering the training program, and that this program was a good start to enlarge their networks in order for them to become entrepreneurs.

P4: Entrepreneurial training programs help refugees to overcome the barriers they face in their networks while starting a business.

5.5 Discussion

We sought to gain a deeper understanding of (social) entrepreneurial refugees, and research the link between prior knowledge, and personal unmet needs on the recognized (social) opportunity in the host country. Likewise, researched the extent to which prior knowledge and personal unmet needs influence social entrepreneurial opportunity recognition. We also examined the barriers to starting a business. We examined how refugees perceive their networks and whether this influences them in starting a business in the host country. We used insights from entrepreneurial cognition theory as well as the literatures on prosocial orientations, user entrepreneurship, and social entrepreneurship to help us to understand the mechanisms this. Based on our findings, we developed seven propositions that can be tested in future research. For a summary, see Table I in the Appendix.

We found that our sample entrepreneurs used their prior knowledge and previous experiences to start companies in their host country. This is line with research into entrepreneurial cognition and previous experiences (Baron, 2006; Dimov, 2010; Shane, 2000; Shepherd & Patzelt, 2018). The interviews revealed that prior knowledge and entrepreneurial experience influenced these latent entrepreneurs in wanting to become entrepreneurs in their host country. They built on the knowledge they have. When prior knowledge fits the context, it is a valuable resource that results in a competitive advantage for a business (Alvarez & Busenitz, 2001; Grégoire et al., 2010); however, this knowledge must fit the specific context. We found that this was not the case for these refugees, and that their prior knowledge restricts them in starting a business. Therefore, in contrast to what is assumed, prior knowledge did not always result in feasible opportunities. The sample entrepreneurs used their experiences and 'copied' them into their new situations without first testing their ideas' feasibility in their new context. Many had not thought about a target market or customer base

before they entered the training program; even then, they struggled with this. We also found that their lack of knowledge about their network and the regulative, legal, and institutional system as well as the market meant that their prior knowledge could not be used.

Based on the literature on prosocial orientation and social entrepreneurship, we examined the effects that unique life experiences have on recognizing and starting a social business. Knowledge corridors, such as past life experiences, help shape social entrepreneurs' opportunity-recognition process (Corner & Ho, 2010). The desire to benefit society, the proximity to a social problem, and specific life experiences are factors that trigger entrepreneurs' prosocial orientations (Barendsen & Gardner, 2004; Conway & Steward, 2009; Germak & Robinson, 2014; Light, 2005; 2013). We found that this was also true for our sample entrepreneurs. Most of the interviewees indicated that fleeing their home country and starting anew made them socially more aware. We also found that compassion for others and empathy influenced their motivations for becoming a social entrepreneur, which is in line with the research into social entrepreneurs' empathy and compassion (Bacq & Alt, 2018; Miller et al., 2012). Their harrowing experiences fueled their will to become more socially oriented, confirming earlier research Barendsen and Gardner (2004). Since refugees are unique in their experience, this helps to understand how such radical changes influence social entrepreneurial orientations. We also found that although many scored high on the prosocial orientation questions (e.g. being social, having compassion, and empathy), this did not 'translate' in their business (ideas).

A reason for this finding is that social entrepreneurship means different things around the world (Hoogendoorn et al., 2010). The context forms the social and economic conditions that influence social entrepreneurial activities (Kerlin, 2009). This may explain why every empathic individual with previous entrepreneurial experience does not utilize this knowledge toward social entrepreneurship, even though they self-identify as prosocial entrepreneurs. They may have a desire to contribute to these constructs on a more personal level, but may not yet know how to translate this desire into a business. They lacked knowledge about social entrepreneurship, a concept they were unfamiliar with. Thus, unsurprisingly, they do not see this as an alternative route to entrepreneurship. Further research may examine to what extent knowledge of social entrepreneurship influences nascent refugee entrepreneurs.

Personal unmet needs influence how entrepreneurial opportunities are perceived and recognized (Shah & Tripsas, 2007, 2012). Based on several scholars' work (Barendsen and Gardner (2004); Conway and Steward (2009); Light (2005); Wood et al. (2013), we argued that experiencing personal unmet needs would influence these refugees' social orientations and how they perceive (social) entrepreneurial opportunities. Not all our sample nascent entrepreneurs aimed to start a social enterprise, but their personal experiences and prior knowledge led them to strongly value social values. In three instances, we found that personal needs influenced the type of business they wanted to start, which provides a preliminary indication that there is a relationship. However, it is unclear to what extent contextual elements such as a lack of knowledge about their host country influences opportunity recognition. Further research should focus on (nascent) refugee entrepreneurs so as to establish whether there is a relationship between personal unmet needs and (social) opportunity recognition.

We see that many refugees opt for entrepreneurship owing to necessity. Entrepreneurship based on necessity is when there are no better choices for work (Chrysostome, 2010; Reynolds et al., 2005). The sample refugees had lost everything and must rebuild their lives from scratch. It is often hard for them to participate in the labor market owing to a lack of personal belongings, diplomas, and resources. They feel overwhelmed. These factors, as well as labor market discrimination, drive refugees into entrepreneurship. The research indicates that entrepreneurs who start a business from necessity are less content and less satisfied with their own firms. Our sample entrepreneurs were often pushed into entrepreneurship owing to "unemployment, family pressure, and individuals' general dissatisfaction." (van der Zwan et al., 2016, p. 274). Refugees are focused on survival and starting over (Bizri, 2017). These factors strongly affect their access to a network.

Having access to a network shapes a nascent enterprise's development. Access to a network is generally a key contributor to nascent entrepreneurs' success and can influence how they recognize opportunities (Aldrich & Zimmer, 1986; Stuart & Sorenson, 2007). It also helps to overcome the liability of newness (Stinchcombe, 1965). Knowing where to get information is crucial to the development of an opportunity and an enterprise (Stuart & Sorenson, 2007). We found that many refugees are constrained by the situation they are in, which is a barrier to opportunity recognition, preparation, and execution. Fleeing their home country and starting anew in a completely different country with a

different culture and language will influence any individual. Overcoming these barriers calls for a flexible mindset on the part of latent entrepreneurs, which was found to be difficult.

In line with Wauters and Lambrecht (2006, 2008), we also found that limited language skills and non-transferrable skills were key barriers. Further, not letting go of the prior knowledge they gained in their home countries was a substantial barrier. These entrepreneurs reasoned that what had worked before would (automatically) work here. They became frustrated when the institutional system or contextual factors turned out to be different. Their lack of openness to learn from this new situation was a substantial barrier. A lack of integration can cause such difficulties. We urge researchers to examine whether there are attitudinal differences between refugees who are more familiar with their host countries' contextual factors and those who are not. Further research should also examine whether there is a sub-optimum or threshold concerning the extent to which unique life events stimulate social entrepreneurial behaviors. In our sample, the extent of trauma as well as the lack of basic skills severely hinder the (social) entrepreneurial process.

5.5.1 Limitations

We dealt with a limited sample size, with individuals who did not necessarily want to become entrepreneurs but applied to the training program get a job, or who were interested in exploring entrepreneurship as a career opportunity. Further, the training program for latent refugees did not specifically focus on business ideas that create social value. Thus, the distribution of commercial and social business ideas may be skewed, resulting in an under-representation of social entrepreneurial initiatives. Pernice (1994) lists several limitations on conducting research with refugees, which we encountered as well, such as the contextual differences, conceptual problems with translations, sample difficulties, linguistic problems, observation etiquette and the personality of the researcher. We found that even when the questionnaire was translated into Arabic, not all the training program participants could understand it well. There are many dialects in Arabic and not all the participants had received much education. Thus, it is possible that we did not interview participants with prosocial orientations based on a personal unmet need because they did not fill this in in the questionnaire. The opposite is also true. We interviewed participants who indicated that they had a personal unmet need that influenced their opportunity recognition, while this was in fact not the case. Since we did

not have a translator at our disposal, the interviews were sometimes difficult. It was hard to reach understanding about some basic concepts, because they were not known and because synonyms were not understood. Owing to the high social desirability and strong cultural differences, it was not always possible to check whether a participant understood what was asked. Further, the sample size was relatively small, making it hard to generalize our findings to larger settings. These limitations and our findings provide fruitful avenues for future research, which can replicate this study with a larger sample size and can use explanatory analyses to find whether it yields the same results.

5.6 Conclusion

We have contributed to a deeper understanding of entrepreneurial refugees. We have examined the influence of prior knowledge on how nascent refugees recognized opportunities for their businesses. Prior knowledge is a key source of entrepreneurial opportunities, and we assessed its influence in a unique sample that provides novel insights to the field of entrepreneurship. We found evidence that refugees' previous entrepreneurial experiences, personal unmet needs, and unique life experiences influence how they recognize an entrepreneurial opportunity. However, in contrast to what is assumed, we found that prior knowledge and previous experiences can be barriers for these nascent entrepreneurs. Even though the entrepreneurial intent in this population is high, situational and contextual factors largely hinder the entrepreneurial process, as does inflexibility in adapting to their new situations. The inflexibility to change the sample entrepreneurs' ideas about their business can be partially explained by the situation they are in; they feel excluded and overwhelmed, holding on to what they know gives a sense of security and control.

This affected the drivers of entrepreneurship, the ways these refugees recognized an opportunity, and their utilization of their networks. We also examined whether refugees are driven by social motivations and a desire to bring about social change, as well as the antecedents of their (prosocial) motivations to start a business. There is a link between specific life events, such as trauma's, and personal unmet needs on the prosocial orientation. This sample provided a unique opportunity to examine this. Only three sample entrepreneurs could be regarded as social entrepreneurs. Others were very socially oriented but did not translate this into a business. A lack of knowledge about social entrepreneurship as well as survival reasons hinder these refugees from starting social enterprises. We found that personal unmet needs and previous experience

with a personal problem somewhat influenced these nascent refugee entrepreneurs' prosocial intentions. Finally, we examined how refugees perceived their networks and whether this may influence their starting a business. They had little knowledge about their network. One reason for this may be that many are still in survival mode and they are often driven into entrepreneurship owing to a lack of other employment options. Other barriers we found were language barriers as well as a lack of awareness of their host country's political and cultural context, a lack of knowledge on the regulative, legal, and institutional system as well as of the market.

Our research has contributed to the literature on (refugee) entrepreneurship by using insights from the literatures of cognition, social entrepreneurship, prosocial orientation, networks and user entrepreneurship. We contributed to an enhanced understanding of the drivers and barriers of (social) entrepreneurship by refugees. In doing so, we provide tools to include an underutilized group of entrepreneurs in the host country's economy. By using a defining event that results in a sample that has unique life experience, which is experienced by a small proportion of the population, we have been able to examine the influence of prior knowledge and personal unmet needs on prosocial orientations and entrepreneurship. The fact that prior knowledge hinders refugees in starting a business is vital information to help these nascent entrepreneurs in their entrepreneurial endeavors. Likewise, it is a useful theoretical contribution to the field of entrepreneurship as well. The finding that their personal experience made the sample entrepreneurs more socially aware, but the lack of knowledge on (social) entrepreneurship, and about the institutional and regulatory system hinders them in exploiting their experiences. This is an important factor to take into account by policymakers. With this research, we have contributed to a better understanding of how to stimulate entrepreneurship by refugees, and more generally how to integrate refugees, into a host country by taking into account the unique characteristics which influence this population. In doing so, the research findings may help in the development of (better) policies to support refugee entrepreneurs and provide valuable insights for future research as well.

Table 14. A Summary of the Propositions

Summary Propositions

-
- P1a P1a: Refugees' prior knowledge can positively impact on entrepreneurial opportunity recognition in the host country.
- P1b P1b: When not contextually applied, refugees' prior knowledge can hinder entrepreneurial opportunity development in the host country.
- P2a Empathy and compassion positively influence refugees' prosocial orientations in the host country.
- P2b The lack of information about social entrepreneurship and a refugee's survival mode negatively influences their recognition of a socially oriented business opportunity.
- P3a Having personal unmet needs positively influence nascent (social) entrepreneurs' prosocial orientations.
- P3b Refugees' personal unmet needs positively influence how nascent (social) entrepreneurs recognize socially oriented business opportunities.
- P4 Entrepreneurial training programs help refugees to overcome the barriers they face in their networks while starting a business.
-

Appendix

Table 15. Prosocial Orientation

Prosocial Orientations					
	N	Min.	Max.	Mean	Std. dev.
Empathy	36	3.00	5.00	4.19	0.52
Empathic business model	36	2.75	5.00	3.68	0.59

Table 16. Personal Unmet Needs (I)

Personal unmet need I			
	N	Yes	No
Personal unmet needs (1)	36	28	8

Table 17. Personal Unmet Needs (II)

Personal Unmet Needs II					
	N	Min.	Max.	Mean	Std. dev.
Personal unmet needs (2)	36	1	5	3.6	0.87

Table 18. Network (I)

Network I		
	Yes	Not selected
Administrative problems	6 (16.7%)	30 (83.3%)
Personnel problems	4 (11.1%)	32 (88.9%)
Financial problems	17 (57.2%)	19 (42.8%)
Commercial problems	3 (8.3%)	33 (91.7%)
Environmental problems	3(8.3%)	33 (91.7%)
Governmental problems	10 (27.8%)	26 (72.2%)

Table 19. Network (II)

Network II		
	Yes	No
Family	15 (41.7%)	11 (58.3%)
Neighbors	1 (2.8%)	35 (97.2%)
Friends \ acquaintances	16 (44.4%)	20 (55.6%)

Coach of the training program	16 (44.4%)	20 (55.6%)
Training program staff	8 (22.2%)	28 (77.8%)
Accountant \ accountant	8 (22.2%)	28 (77.8%)
Bank	2 (5.6%)	34 (94.4%)
Industry organization	1 (2.8%)	35 (97.2%)
Chamber of Commerce	7 (19.4%)	29 (80.6%)
Supplier	1(2.8%)	35 (97.2%)
Co-competitor	1 (2.8%)	35 (97.2%)
Municipality	13 (36.1%)	13 (63.9%)
Province (county)	1 (2.8%)	35 (97.2%)
State	1 (2.8%)	35 (97.2%)

Table 20. Network (III)

Network III

	Yes	No
Family	14 (38.9%)	22 (61.1%)

Neighbors	2 (5.6)	34 (94.4%)
Friends \ acquaintances	12 (33.3%)	24 (66.7%)
Coach of the training program	8 (22.2%)	28 (77.8%)
Training program staff	4 (11.1%)	32 (88.9%)
Accountant \ accountant	4 (11.1%)	32 (88.9%)
Bank	3 (8.3%)	33 (91.7%)
Industry organization	2 (5.6%)	34 (94.4%)
Chamber of Commerce	2 (5.6%)	34 (94.4%)
Supplier	1 (2.8%)	35 (97.2%)
Co-competitor	0 (0%)	36 (100%)
Municipality	10 (27.8%)	26 (32.2%)
Province (county)	1 (2.8%)	35 (97.2%)
State	1 (2.8%)	35 (97.2%)

Chapter 6: The Interplay of Conditions that Affect Social Entrepreneurs' Focus on their Organization's Mission: The Configuration of Conditions that Result in a Dominant Social, Economic, or Hybrid Mission ¹³

Summary

Our research investigates the interplay of the conditions producing either a dominant social, economic, or hybrid mission type. We examine how the mission of 133 (nascent) social entrepreneurs is affected by the interplay of various conditions. The objective of this paper is to accumulate more knowledge about the configuration of conditions associated with a focus on social entrepreneurs' social, economic, or hybrid mission and to determine whether and how they interact. We move away from the discussion on tension and the dominant prosocial orientation to focus on the continuum on which social enterprises operate. Our research addresses whether and how personal unmet needs, entrepreneurial experience, social innovation, and attention paid to the social and economic objectives are sufficient to produce entrepreneurial mission types for social enterprises. In doing so, we do not only examine the conditions that converge, but also distinguish between the ways they affect each mission type. We use a configurational approach and a fuzzy set qualitative comparative analysis (FsQca) to explore different combinations of conditions with a dominant focus on the organization's social, economic, or hybrid mission as an outcome. Our findings show that all the entrepreneurs in our sample were hybrid social entrepreneurs, whose social and economic mission is not a dichotomy, but synergistic of each other resulting in a blend with different mission nuances, best illustrated by 'sliders' that move on the continuum. Based on our findings we developed a typology which shows that the social and economic missions actually work together and that all enterprises are a hybrid form. The developed typology embraces various hybridity types, and the FsQca analysis' findings, combined with the insights from the interviews, has helped to change the juxtaposition between social entrepreneurs' economic and social missions, allowing for the inclusion of multiple logics instead of the dominant tradeoff or tension view. By linking the various conditions to the social entrepreneurs'

¹³ Previous versions of this chapter have been presented at the 2019 16th Annual Social Entrepreneurship Conference, 7-9 November- where it won the best paper award, and on the 2019 Rent Conference 28-29 November in Berlin

mission, we gained a better understanding of the design features required to organize these different mission types. Our findings are specifically useful for entrepreneurship support by providing insights into the difference in the perceived importance of the organization's social and economic missions and how different conditions affect the mission subsequently. Moreover, these insights contribute to our understanding of the configurational approach's merits for social entrepreneurship research.

6.1 Introduction

Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth for customers by creating social value (Lepoutre et al., 2013; Zahra et al., 2009). Social entrepreneurs use market-based approaches to create social value, which results in a combined social and economic mission (Austin et al., 2006; Mair & Marti, 2006). Social enterprises are therefore considered hybrid organizations that balance their social and economic missions (Stevens et al., 2015). The continuum approach argues that social enterprises can be placed on a spectrum ranging from an social to an economic mission (Austin et al., 2006; Hahn & Ince, 2016; Peredo & McLean, 2006; Young & Lecy, 2014). There are more socially and economically oriented social entrepreneurs, who all endeavor to balance their social and economic mission in some way (Battilana & Lee, 2014; Lepoutre et al., 2013; Miller et al., 2012). Research addresses this as a dichotomy or tradeoff, with a more dominant focus on the social mission implying a lower-level economic mission and vice versa (Stevens et al., 2015). In addition, research has generally defined social enterprises' mission in terms of the conflict or tension between their economic and social missions (Albert & Whetten, 1985; Costanzo et al., 2014; Moss et al., 2011; Smith et al., 2013; Stevens et al., 2015). We move away from the discussion on tension and the dominant prosocial orientation to focus on the continuum on which social enterprises operate and the interplay of factors that constitute in the missions' nuances.

The difference between social enterprises' social and economic missions is still regarded a black box (Stevens et al., 2015, p. 1068). It is unclear whether the social and economic missions can work together and, if so, how this symbiosis between the mission types works (Muñoz & Kimmitt, 2019). Nevertheless, different business models have different implications for venture success (Saebi et al., 2019). There is little research that examines whether social and economic missions are distinct or how they relate to each other (Stevens et al., 2015, p.

1052). Likewise, much is still unknown about social enterprises' priorities regarding their social and economic objectives (Young & Lecy, 2014). To date, hybrid social entrepreneurial organizations have not been studied extensively (Hahn & Ince, 2016). Consequently, there is a need for research that takes the diversity and different dimensions of social ventures into account, as well as distinguishes between their social and economic goals (Hoogendoorn, 2011). There is also a call for research to address social enterprises' various organizational forms and how hybridity explains them (Doherty et al., 2014; Wilson & Post, 2013). Similarly, there is a need for research that explores the specific choice of a hybrid business model and, more specifically, how personal characteristics, such as prior knowledge and entrepreneurial experience, influence this choice (Saebi et al., 2019). Knowledge is therefore needed of the various conditions that affect the organization's mission type. This requires research that examines the *joint* effects of personal and organizational factors on social entrepreneurs' mission type, which is currently lacking. To address these gaps and to enhance the social entrepreneurship literature, our research focuses on which configuration of conditions are associated with a focus on social entrepreneurs' mission and whether and how they interact.

Most research into social entrepreneurship uses a linear approach, resulting in a one-sided view of the organization. However, a single, independent variable is often not sufficient or necessary to produce an outcome, which instead requires a combination of multiple independent variables (Woodside, 2014). This is especially true for social entrepreneurs who are heterogeneous and have different motivations for starting a business (Douglas & Prentice, 2019). We therefore examine the interplay of variables leading to a dominant mission type for social entrepreneurs by using conditions associated with social entrepreneurship and entrepreneurship in general. We distinguish between organizations with a dominant focus on the social, economic, or hybrid (social and economic). We explore whether social entrepreneurs who emphasize an economic mission have different combinations of conditions than those emphasizing social or hybrid missions. We use a configurational approach and apply fuzzy set qualitative comparative analysis (FsQca) to explore the different combinations of conditions producing a dominant focus on a social, economic or hybrid mission. Using a sample of 133 (nascent) social entrepreneurs, we explore whether and how the combination of conditions is sufficient to produce the different mission types. Our research question therefore is: *are personal unmet needs, entrepreneurial experience, social innovation, and attention to social*

and economic objectives sufficient to produce entrepreneurial mission types for social enterprises; if so, how?

We find that the social and economic missions actually collaborate and that all enterprises are a hybrid form with, on the one hand, more socially driven social entrepreneurs, and, on the other, more economically driven social entrepreneurs. Enterprises' dual mission is not a dichotomy, because the missions are synergistic. The social entrepreneurs in the sample clarified that social value creation is only possible if the business model is healthy and an entrepreneur can sustain it over time. The missions are best illustrated as parallel sliders that move on a continuum. Our findings indicate that this dual mission does not cause organizational tension and is not a trade-off. Further, we often find entrepreneurial experience in combination with either social or economic objectives, indicating some form of concrete thinking about the business. However, in the more socially oriented mission type, entrepreneurial experience is often a boundary condition, which may be due to the more socially oriented entrepreneurs' personal unmet needs and social objectives compensating for their lack of entrepreneurial experience

We answer the call for more research into understanding the differences in the perceived importance of a social enterprise's economic and social missions (Stevens et al., 2015), and contribute to research on hybrid social organizational identities (Moss et al., 2011). We examine how the interplay of various conditions affect the mission, and, in doing so, not only identify the conditions that collaborate, but also identify how each mission type works. We add to the literature the novel insights that help to examining the synergy between mission types, instead of juxtaposing these. We also make a methodological contribution by incorporating the notions of equifinality, data asymmetry, and causal conjunction. Further, we go beyond the existing literature on (hybrid) social enterprises' mission that measure variables' "net" effect on the organizational mission and incorporate a configurational perspective to examine the interplay of conditions. To the best of our knowledge, this paper is the first to show the different combinations of factors that result in social entrepreneurs' different mission types and in doing so provide fruitful avenues for future research. Moreover, our findings are relevant for organizations aiming to support entrepreneurship, as they expose the differences in social enterprises and provide an understanding of this entrepreneurial form's complexity. Lastly, we contribute on a measurement level as well by adapting the ranking scale of

Stevens et al. (2015) to a Likert scale, which provides greater opportunity normative and utilitarian motives to co-exist instead balancing each other out

6.2 Background

Building on management and organization, (social) entrepreneurship, and configurational literature, we explore the extent to which social and economic objectives, social innovation, personal unmet needs, and entrepreneurial experience interact to produce a dominant mission type for (nascent) social entrepreneurs. We first describe the continuum approach from which we derive the dominant mission types. Afterwards, we will describe the motivations for starting a social business more generally. Lastly, we provide the theoretical basis for including the conditions used in this study.

6.2.1 Continuum Approach

Social entrepreneurs can be placed on a continuum of social and economic objectives (Austin et al., 2006; Peredo & McLean, 2006; Stevens et al., 2015; Young & Lecy, 2014). Dees and Elias (1998) argue that solely charitable organizations could be placed at the one end of the range, while wholly commercial enterprises can be placed at the other end; these scholars refer to this range as the charitable to commercial continuum (p. 174). Social enterprises have utilitarian (economic) and normative (social) objectives, and often combine these objectives to differing degrees (Lepoutre et al., 2013). Consequently, social entrepreneurs use market-based approaches to create social value, which is a combination of their social and economic missions (Austin et al., 2006; Mair & Marti, 2006). The social entrepreneurial process results in society benefitting from the creation of social value, although it also benefits the entrepreneur (Costanzo et al., 2014; MacMillan, 2003). Since social enterprises have a dual mission they are considered hybrid organizations (Battilana & Lee, 2014; Miller et al., 2012; Saebi et al., 2019). The continuum approach takes the heterogeneity comprising organizations into account, as well as how this may affect the organization's mission. Normative and utilitarian identities, and self-regarding and other-regarding values are key dimensions that inform about social enterprises' social and economic mission (Stevens et al., 2015). So far, research has addressed these ends of the continuum as a tradeoff, with a more dominant focus on the social mission implying a lower-level economic mission, and vice versa (Stevens et al., 2015). To date, research generally defines social enterprises' mission in terms of the conflict or tension between the economic

and the social mission (Albert & Whetten, 1985; Battilana et al., 2012; Bruneel et al., 2016; Costanzo et al., 2014; Florin & Schmidt, 2011; Gidron, 2017; Moss et al., 2011; Smith et al., 2013; Stevens et al., 2015), which in turn influences various aspects of the organization, such as its goals, values, and identity. (Albert & Whetten, 1985; Costanzo et al., 2014; Moss et al., 2011; Stevens et al., 2015).

Following the continuum approach, we argue that there are many nuances in the organizational mission, ranging from those of wholly socially oriented nonprofit organization to for-profit organizations that also have a social objective (Lepoutre et al., 2013; Peredo & McLean, 2006). However, we argue that social entrepreneurs may equally value their economic mission without it degrading their social one. Consequently, by examining this, we contribute to the requested knowledge on the relationship between the social and economic missions and how they collaborate (Muñoz & Kimmitt, 2019), which is highly relevant for entrepreneurship support and venture success. We therefore include the social, economic, and hybrid mission, which is the mission type that values social and economic missions equally in this study.

6.2.2 Motivations for starting a business

Motivations are essential to transform entrepreneurial intention into action (Yitshaki & Kropp, 2016, p. 546). The founder's personal motivations are often essential in establishing the organization and determining the social value it creates (Bacq & Janssen, 2011; Short et al., 2009). Research indicates that prosocial orientations trigger the social entrepreneurial process (Bacq & Alt, 2018). There is, however, little research that addresses other motivations for starting a social enterprise (Douglas & Prentice, 2019). This finding can result in a one-sided, predominantly social view of the triggers resulting in social entrepreneurship. The dominant focus on the social mission, leaves little space for other social entrepreneurial process triggers, such as economic ones. According to Douglas and Prentice (2019, p. 70), social entrepreneurs' prosocial orientation alone do not drive them to social entrepreneurship, as profit and innovation reasons also contribute. Individuals choose a combination of these elements that results in a part-worth sum to determine whether an opportunity should be pursued. In other words, "if the utility part-worths of these two outcomes [innovation and profit-making] are sufficiently large to make a social entrepreneurship opportunity more desirable in terms of total utility than any other commercial or social or employment opportunity," the individual will choose social entrepreneurship. Following this logic, we expect the emphasis on

the social and economic aspects to vary. In addition, this may explain how different conditions collaborate or substitute one another producing the entrepreneur's mission type. Moreover, based on the above, different combinations of motives, which can range from the more social to the more economic, drive social entrepreneurs (Bacq, Hartog, & Hoogendoorn, 2016), thus leading to more socially or economically oriented social enterprises (Lepoutre et al., 2013). We therefore examine the interplay of the following conditions on producing a dominant mission type of the social entrepreneur

6.2.3 Conditions

We use a set of conditions for our explorative analysis that may relate to the economic and social aspects of an enterprise. These conditions may influence the organizations' missions and affects their place on the continuum. Since firms need to choose the objectives to which they will pay attention, this choice often explains firm behavior (Barnett, 2008). The attention paid to organizations' social or economic objectives differ according to their entrepreneur's prior knowledge and experience, and the context in which they operate. All of these elements result in different types of organizations with different nuances in their missions. Objectives are more specific than the organizational mission, since they are often framed within a time period. Nonetheless, there is a strong relationship between individual values and organizational values, with these values' interaction influencing the individual and the organization's decision-making (Stevens et al., 2015). We therefore examine how an enterprise's objectives relate to its mission.

Innovation is often used in the pursuit of opportunities to create social change (Bacq & Janssen, 2011; Dees, 1998; Nga & Shamuganathan, 2010; Peredo & McLean, 2006; Thompson, 2002; Zahra et al., 2009). Social entrepreneurs often develop innovative solutions for unmet social needs and are therefore referred to as pioneers (Dees, 1998; Thompson, 2002). Even though there is a clear link between social entrepreneurship and innovation, this link is not well understood (Phillips et al., 2015; Short et al., 2009). In line with Douglas and Prentice (2019), we argue that innovation motivation's strength varies, as it may vary regarding the different combinations of factors that result in a social organization, which is the dominant mission type.

The social venture's social value creation potential is a function of entrepreneurs' values, motivations, and skills (Hlady-Rispal & Servantie, 2016; Hopp &

Sonderegger, 2015). Entrepreneurial experience, which is a part of human capital, can help with recognizing opportunities and can support venture creation in its early stages (Baron & Ensley, 2006; Morris et al., 2012). One of the advantages of entrepreneurial experience is that it can enhance entrepreneurial success (Dimov, 2010; Unger et al., 2011). Various scholars have found that entrepreneurial experience increases commercial thinking (Baron & Ensley, 2006; Lee & Battilana, 2013), which can help an enterprise survive in the long-run. Since entrepreneurial experience's outcomes vary (Morrison, 2011), we are interested in whether this affects the social entrepreneur's mission.

Prior experience with social problems results in higher social entrepreneurial intent (Hockerts, 2017). Knowledge corridors, such as past life experiences, help shape social entrepreneurs' opportunity-recognition process (Corner & Ho, 2010). An entrepreneur's personal circumstances can be the basis for venture creation (Hahn & Ince, 2016). Social entrepreneurs have a very high understanding of their potential customers' needs, because they often belong to the same disadvantaged population that they serve (Renko, 2013). Researchers have found that specific life events influence prosocial entrepreneurial behavior (Yitshaki & Kropp, 2016). Personal unmet needs due to hardship or radical changes in one's life, can spur one's prosocial opportunity recognition. Knowledge about these personal unmet needs is then used to help people who experienced the same (Asarkaya & Keles Taysir, 2019; Barendsen & Gardner, 2004). This process is closely related to end-user innovation and entrepreneurship, with personal unmet needs triggering opportunity recognition processes regarding innovations and business (Shah & Tripsas, 2007, 2012).

Based on the theoretical underpinnings, we developed the following model for our research:

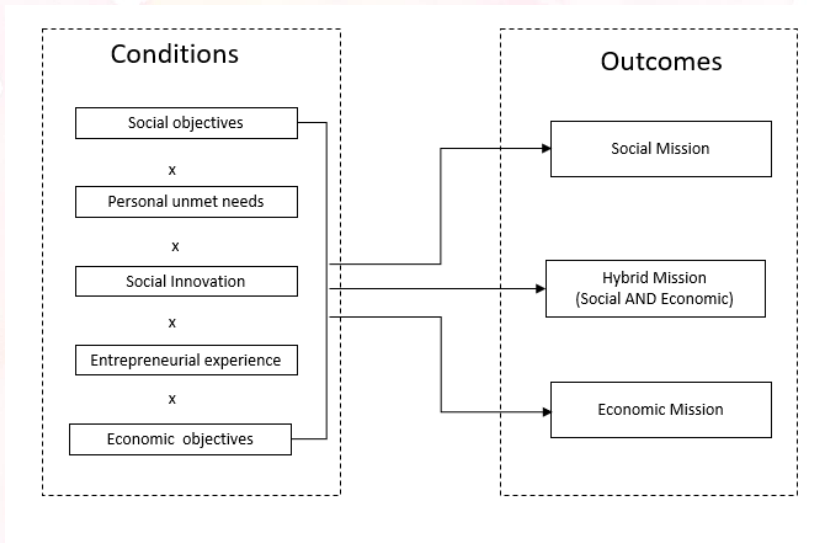


Figure 13. Conceptual Model Chapter 6

6.3 Method

6.3.1 Research setting and design

In this research, we aim to answer whether personal unmet needs, entrepreneurial experience, social innovation, and the attention paid to social and economic objectives are sufficient to produce the social entrepreneurial mission types and, if so, how this occurs. We use an explorative research design with a mixed-method approach and combine qualitative (interviews) and configurational research by using the FsQca method, incorporating conditions based on our questionnaire (Creswell & Clark, 2007; Ragin, 2008; Tashakkori & Teddlie, 1998).

This study's choice of conditions and its examination of how they work together comprise its explorative nature. The mixed methods approach allows for a better understanding of the problem at hand and provides a more complete picture of the phenomenon under study (Creswell & Clark, 2007). Our sample consists of applicants of the Move2Social program, which is an entrepreneurial training program focused on (nascent) social entrepreneurs in the Netherlands. This training program helps entrepreneurs overcome challenges related to (starting) their social enterprises. Move2Social focuses on entrepreneurs in the idea phase

and on already established ones. This training program is open to all (aspiring) social entrepreneurs and focuses on three pillars: what the participants can achieve, the business case, and whether or not they will obtain funding.

The program held multiple rounds in Enschede, Delfzijl, and Rotterdam which are all cities in the Netherlands. We collected data in four of the rounds held from March 2017 until June 2018. The sample size consists of 133 (nascent) social entrepreneurs. A total of 58 (43.6%) of the participants was male and 75 (56.4%) female. The applicants' average age was 44 years old. Since all of the program's participants were Dutch; the questionnaire was in Dutch and the interviews were held in Dutch. We surveyed all of the training program's applicants before the selection was made. An independent translation firm translated the detailed survey (back-and-forth) into Dutch. We used LimeSurvey, an online survey tool, to administer the survey. Following the survey, we used a total of 19 in-depth interviews to probe for more information. We conducted a factor analysis of all the measures to first to examine whether the constructs would load on the same latent variable. In addition, we examined each item's Cronbach Alpha. Based on these outcomes, we constructed the variables. For an overview of the descriptive statistics in Table 1a, see the appendix.

6.3.2 Measures

Whenever possible we used measures from existing literature for our constructs, and various scholars' validated measures.

Measure	Item	CA
Social Mission Stevens, Moray, and Bruneel (2015).	The social mission consisted of the following three measures combined: Other-regarding values: Being helpful (working for the welfare of others), having compassion (feeling empathy for others),	The reliability as indicated by the Cronbach alpha was 0.76, which is acceptable for a social mission. The respondents were asked to rate how important the following

equality (brotherhood, equal opportunity for all), and loving (being affectionate, tender).

Normative identity:

Community involvement, the quality of work is more important than the profit, democratic decision-making, social relationships with other members, and the education and training of the organizational members.

Attention to Social Goals:

We have the possibility to participate in activities that address social issues, regularly examine new opportunities and programs that could result in an increase in value for society, and meets its ethical and moral responsibilities.

things were for them on a five-point Likert scale, with 1 indicating very unimportant and 5 very important. We changed this from a 7-point Likert scale to insure consistency with our other measures.

Economic mission

Self-regarding values:

Stevens, Moray, and Bruneel (2015). Comfortable life (a prosperous life),

Wealth (making money for myself and family)

Pleasure (an enjoyable life).

Utilitarian identity

Economic value of products,

Customer service,

Price of products and services,

Professionalism/ expertise of staff,

Quality of products or services).

Attention to economic goals:

long-term return on investment in maximized,

allocate resources on their ability to improve long-term profitability,

it is consistently profitable.

Hybrid mission (self-developed) Combining economic and social missions by using the Boolean AND function.

Social Innovation I am able to see risks as opportunities to create social value, The Cronbach alpha of this measure was 0.91. People meeting this condition in the

<p>Nga and Shamuganathan (2010)</p>	<p>I am a flexible individual, I am innovative,</p> <p>I am proactive in identifying social opportunities,</p> <p>I am able to create better social value,</p> <p>I am able to deliver sustainable advantage via innovative goods and services, I am a pragmatic individual,</p> <p>I am able to create social value through goods or services</p>	<p>configuration have a strong focus on social innovative aspects.</p> <p>They had to rank each of the items based on a five-point Likert scale, with 1 indicating strongly disagree and 5 strongly agree.</p>
<p>Personal unmet need</p>	<p>A lacking in my personal situation led me to see the need for this product or service</p> <p>Someone in my inner circle needs this product or service</p> <p>I need this product or service myself</p>	<p>The Cronbach alpha of this construct was 0.60, which is acceptable for exploratory research (Hair et al., 2016).</p>
<p>Entrepreneurial experience</p>	<p>We combined the following questions, which we calibrated to obtain a fuzzy score.</p> <ul style="list-style-type: none"> - Have you started a business before (yes/no)? If yes, how many years 	

- Is your business already established (yes/no) If yes, how many years?

Economic and social objectives
Lepoutre et al. (2013)

Organizations may have goals according to the ability to generate economic value, societal value and environmental value. Please allocate a total of 100 points across these three categories as it pertains to your goals.

For example, an organization's goals may allocate 80 points for economic value, 10 points for societal value, and 10 points for environment value.

How many points for economic value? And how many points for societal value? And, finally, how many points for environmental value?

6.4 Analysis

Organizations are multidimensional and complex; FsQca is therefore the best-suited method to understand organizational management phenomena (Greckhamer et al., 2018; Woodside, 2014). This applies specifically to social ventures, which are diverse in outcome, have various descriptions, and various forms (Battilana & Lee, 2014). Consequently, a configurational approach is

justified on the basis of the expected complex interaction of the conditions producing the mission types, the fact that more than one configuration may result in the outcome, and when conditions within a configuration may substitute each other. We used FsQca to conduct our analysis, using the FsQca 3.0 software. While FsQca can handle large datasets, it is well-suited and known for also handling complex small to medium sized samples (Kraus, Ribeiro-Soriano, & Schüssler, 2018; Ragin, 2008).

FsQca is based on Boolean algebra and set membership, and can be used to bridge quantitative and qualitative worlds (Ragin, 2008). FsQca is a nonparametric, set-theoretic analytical approach that uses sets and the search for set relations to study social phenomena (Schneider & Wagemann, 2012). Set theory is based on the principles of necessary and sufficient conditions that influence an outcome. A condition is necessary if, whenever the outcome is present, the condition is also present (Schneider & Wagemann, 2012, p. 69). In set-theoretic terms this means, if A then B (Ragin, 2008). A condition is sufficient when it is present across cases the outcome is also present (Schneider & Wagemann, 2012, p. 57). Consequently, sufficient conditions always produce an outcome; however, they may not be the only conditions producing this outcome. Other conditions may also produce that outcome. This means in set-theoretic terms A is sufficient for B (Ragin, 2008). When a condition is sufficient, it is a subset of an outcome (Ragin, 2008; Schneider & Wagemann, 2012). Both the outcomes (dependent variables) and conditions (independent variables) are conceptualized as sets and expressed in terms of set membership ranging from 0.00-1.00 (Fiss, 2007). Due to the fuzzy membership scores, conditions have various degrees of belonging in a certain set. The data is calibrated in order to obtain set membership scores (Ragin, 2008).

The method is based on the notion of equifinality, causal complexity, and data asymmetry (Ragin, 2009). Equifinality and causal complexity indicate that combined effects have multiple configurations (paths) that can all lead to an outcome. Data asymmetry indicates that researchers should view the presence and absence of the outcome as two separate phenomena, which different causal combinations can influence (Ragin, 2009). It is therefore important to provide distinct explanations for the presence and absence of a condition because each case may require different causal models (Greckhamer et al., 2018; Schneider & Wagemann, 2012). This makes FsQca especially appropriate for complex causal reasoning, which allows different combinations of the causal conditions (Greckhamer et al., 2018). FsQca is a well-suited method for examining different

combinations of conditions associated with the outcome of interest (Greckhamer et al., 2018). The combination of conditions producing an outcome is referred to as a configuration (Ragin, 2008).

FsQca is case oriented and enables researchers to undertake within-case and across-case comparisons (Fiss, 2007; Ragin, 1987, 2008; Rihoux, 2013). FsQca is suitable for use when “causality in the research phenomenon is both multiple when an outcome has more than one cause – and conjunctive – when these causes work together to produce the outcome” (Kraus et al., 2018, p. 17). Traditional research methods, such as multiple regression analysis or structural equation modelling, are not appropriate for examining the interplay of factors sufficient to produce an outcome (Cragun et al., 2016; Woodside, 2018). These methods are not only directional and symmetric, but also examine the independent variables’ “net” effect on the dependent variable. Consequently, they are not appropriate for examining complex, asymmetrical, and reciprocal causal relationships (Kraus, Burtscher, et al., 2017; Woodside, 2014). In addition, traditional methods often have problems considering equifinality (Cragun et al., 2016; Ragin, 2008).

Russo et al. (2019, p. 2) summarize that FsQca allows researchers to identify how different causal conditions are combined into different configurations produce the outcome of interest (conjunctural causation) and to assess whether more sufficient configurations produce the same outcome (equifinality) (Fiss, 2011; Greckhamer et al., 2008; Rihoux & Ragin, 2008). The analysis will therefore yield different configurations of conditions sufficient for the outcome (Greckhamer et al., 2018). This makes FsQca a suitable method for answering our research question, namely whether the interplay of various conditions produce differing mission types for social enterprises.

6.4.1 Splitting the sample

Our initial analysis consisted of all the cases indicating the specific mission type, but omitted the opposing mission type. For instance, in respect of the dominant social mission, we included all the cases except those that scored above >.5 regarding the economic mission in order to reduce the amount of overlap in the sample and to yield unique configurations for each mission type. However, when analyzing the results, we found that there was still a great deal of overlap between the cases within the mission type, as well as false positives. Following Greckhamer et al. (2018), who indicate that case samples may comprise a sample

of “representative cases” from the larger population of cases (p. 488), we decided to split the sample size as follows: the social mission type consisted of all the cases that scored $>.5$ in respect of the social mission and $<.5$ regarding the economic mission. The latter comprised all the cases that scored $>.5$ in respect of the economic mission and $<.5$ regarding the social mission. The hybrid mission consisted of all the cases that scored $>.5$ regarding the social and economic missions. We derived this sample by using the Boolean function AND (fuzzyand), which takes the lowest score of the two merged sets (Ragin, 2017). This resulted in the following sample sizes per mission type: the social mission consisting of 21 cases, the economic mission consisting of 30 cases, and the hybrid mission type consisting of 40 cases. These findings indicate that 42 cases scored $<.5$ on the social and economic value, thus not meeting the criteria for inclusion. It was not possible to analyze this sample due to too low coverage and consistency values. Since there was not enough variation, using the negated outcomes would not result in meaningful results. Splitting the sample in the way we did, ensured that the cases within the sample were unique for the examined mission type.

6.4.2 FsQca procedure

6.4.2.1 Step 1 Calibration

The first step of the FsQca analysis consists of calibrating the original variable scores into fuzzy scores, ranging from 0.00-1.00. The advantage of calibrated measures is that they are directly interpretable and take the context-setting conditions into account (Ragin, 2008). In addition, calibrated membership scores help to plot complicated statements on an X axis to test the consistency of the asymmetric relationships between X and Y (Woodside, 2014, 2018). In order to obtain a fuzzy membership score, our Likert scales needed to be calibrated (Ragin, 2008), which we did by calculating each item’s total scores per variable (see the appendix). We checked whether these scores were normally distributed, which those of the social mission and the economic mission were. In these cases, we used the percentiles for calibration (see the appendix for the test of normality). For the non-normal distributed variables, we used the approach described by Ragin (2008) and examined the data in relation to our contextual and theoretical knowledge about the sample set threshold. The calibration results are based on three anchors: full membership, the cross-over point (0.50), and full non-membership. When a condition scored .50, we changed it to .501. The FSQCA software uses these anchors to calibrate the membership scores in order to obtain the fuzzy score accordingly (Ragin, 2017), see table 23 in the

appendix for our calibrated scores. The scores in column b-d refer are the calibrated scores used for the robustness analyses.

6.4.2.2 Step 2 Necessary conditions

The second step in any FsQca analysis is to determine which conditions are necessary. It is standard practice to test for this necessity prior to testing for sufficiency (Ragin, 2008). Necessary conditions should be omitted from the analysis, since they will appear in any configuration. In order to assess whether a condition is necessary, researchers need to examine the condition and the negated condition (Schneider & Wagemann, 2012). When both conditions score above .9, they can be considered trivial necessary conditions and omitted from the analysis (Greckhamer et al., 2018) The consistency value is used to determine whether a condition is necessary and can be obtained by means of the following formula: $(Y_i \leq X_i) = \sum \frac{[\min(X_i, Y_i)]}{\sum(Y_i)}$. We did not find any necessary condition per mission type. We report the outcome of the necessary conditions analysis in the appendix.

6.4.2.3 Step 3 Sufficient conditions

The third step is the analysis of sufficiency with regard to the outcome in the form of truth tables. This analysis allows us to examine which cases share specific combinations of conditions (Ragin, 2008). Truth tables list the logically possible combinations of conditions in relation to the outcome in the form of a configuration. The number of possible configurations is 2^k , where k indicates the number of conditions used (Ragin, 2009). In our case, this is 2^5 , 32 configurations. The first step in producing the final truth table is to specify the elimination table. Cases are displayed when they have a score greater than 0.5 with regard to the condition and the outcome. In order to reduce the number of configurations so that the most meaningful configurations will remain, choices have to be made with regard to the solution and the number of cases' consistency and coverage. Consistency is the extent to which the empirical evidence supports the solutions and indicates how consistent the observed configurations are related to the outcome (Berg-Schlösser et al., 2009; Ragin, 2008). Coverage is the extent to which the solution is found in the observed cases and can be understood as the configuration or entire solution's 'strength' (Greckhamer et al., 2018). Consistency is compared to the correlation metric, whereas coverage is compared to the r-squared in traditional statistical analysis (Woodside, 2014, Kraus 2017). The truth table displays the consistency per configuration, as well

as the entire solution. In addition, the entire solution's coverage is calculated, as well as the raw and unique coverage. When there is more than one condition, coverage provides evidence of empirical importance, or the configuration's strength. The assessment of each combination's unique coverage can complement raw coverage (Ragin, 2008, 2017). The consistency and coverage scores help us understand the outcomes' strength and relative importance. The formulas to calculate the consistency is $(Xi \leq Yi) = \frac{\sum [\min(Xi, Yi)]}{\sum (Xi)}$, whereas the formula for coverage is $(Xi \leq Yi) = \frac{\sum [\min(Xi, Yi)]}{\sum (Yi)}$. At least 75% of the cases should be included, with a consistency cutoff of around .80, but no less than .75, and the coverage should be greater than .01 (Ragin, 2017; Woodside, 2018). We used a cutoff of $n=1$ for the cases, and a consistency cutoff of .99, resulting in all the cases being included in the analysis. In most instances, the software produces three outcomes, the complex, parsimonious, and intermediate solution (Greckhamer, 2011). Using cases with $>.5$ membership led to configuration consistency levels of $>.95$. All the cases were therefore included, which meant that we could not report the parsimonious solution, only the complex and intermediate ones. We therefore only report the intermediate solution.

6.5 Results

Our explorative study, with (nascent) social entrepreneurs, found different configurations of conditions resulting in a more dominant focus on either the organization's social, economic, or hybrid mission. We found four different configurations resulting in a dominant social mission, five resulting in a dominant economic mission, and five resulting in a hybrid mission. These configurations have displaying a form of hybridity in common.

6.5.1 Social mission

"For our business, the social is more important than the business model. We must earn an income, but it is mainly about what you can mean for society. What you can do for your fellow man besides the fact that you have a company that has to run well, and you also have to keep an eye on others or weak ones in society to whom you may also mean something."

Table 21. Configurations Social Mission

Social	1	2	3	4
--------	---	---	---	---

Social innovation				●
Social objectives	●		●	●
Economic objectives	●	●		
Entrepreneurial experience		●	⊗	
Unmet need			●	●
Raw coverage	0.46	0.49	0.42	0.42
Unique coverage	0.06	0.15	0.09	0.03
Consistency	0.95	0.99	0.95	0.99
Solution coverage:	0.81			
Solution consistency	0.93			

Following (Ragin & Fiss, 2008), the truth table outcomes are represented by the following elements: a black circle (●) indicates the presence of a condition, a circle with a cross (⊗) indicates the absence of a condition, an empty cell indicates the “do not care” condition, meaning that this specific condition is not considered in the solution.

With regard to the 21 entrepreneurs with a dominant social mission, we found four configurations of conditions that are sufficient to produce the dominant social mission. Solution one displays the combination of social and economic goals required for a dominant social mission. These social entrepreneurs find the social and the economic objectives important. In configuration 2, we found the combination of economic objectives and entrepreneurial experience resulting in a dominant social mission. It seems that these two conditions are a substitute for the more socially oriented conditions. Configuration 3 displays a combination of social goals, personal unmet need, and the absence of entrepreneurial experience. Personal unmet needs and social objectives may, however, compensate for a lack of entrepreneurial experience. In the last configuration, we find that the combination of social innovation, social objectives, and personal unmet needs result in a dominant social mission. These configurations seem to come close to the more classical view of social entrepreneurs as innovative change agents (Dees, 1998).

Solution consistency can be understood as how often a solution explains an outcome compared to all the outcomes, therefore resembling statistical

correlation, which is 93%. The consistency exceeds the benchmark of $>.80$ (Greckhamer et al., 2018; Ragin, 2008). Our solution coverage indicates that the solution covers 81% of the cases. This measure explains how much variance in the outcome the configurations explain. The solution's raw coverage indicates how much of the outcome each path covers. The unique coverage is how much of the outcome is covered by only a specific path. The distinction between the two is important, since some paths can overlap, indicating that the outcome occurs for more than one reason (Schneider & Wagemann, 2012). Our configurations' raw coverage ranges between 0.42 and 0.46, which indicates that the outcome that each path covers is between 42% and 46%. The social mission configurations' unique coverage ranges between 0.03 and 0.15, which exceeds the threshold of 0.01 (Ragin, 2017; Woodside, 2018) and provides an indication that the path with the highest score is the most dominant (Oeij et al., 2019).

Social objectives are present in three of the four configurations, which is in line with the dominant mission type. Most of the respondents are active in human health and social work activities, and their business ideas are aimed at empowerment, care, and sustainability. Entrepreneurial experience seems to be less important in the combinations of configurations, indicating that the conditions in the combinations are less important, or that other conditions substitute their effect. It therefore seems that entrepreneurial experience is a boundary condition instead of a driver of starting a business. For instance, personal unmet needs seem to substitute the lack of entrepreneurial experience in combination with social objectives. According to respondent ID 58: *"I did not have any entrepreneurial experience [...] I thought, I had so many visits to the hospitals and examinations that there had to be something that would make it easier for me and for others."* The participants' often dominant logic that the business needs to be sustainable over time can explain the economic missions present in these solutions: *"For me, social entrepreneurship means having a societal impact, but also the need to be economically viable, meaning not only dependent on subsidies, gifts, and the like."* Respondent 128 indicated that: *"The social aspect is more important than the economic one, but I need to earn a living of course."* Social innovation did not appear in the configurations that often, though this was also not an objective for some of the participants like ID 131: *"It may not be innovative. Everything must always be new, new; however, it may not be super innovative, but what we think can be innovative in our case is that we really want to focus on what we call environmental care."* Another respondent asked: *"Do I think I am innovative? Yes, and no. What is being innovative? It is not*

something completely new [...], but it is innovative[..] I think other people find it more innovative because they have a more outside view [than I have].” However, all the respondents scored above average on the innovative questions. Respondent ID 128 explained: “I did not start a business before, but my dad had a stroke and this opened my eyes. Combined with my background in sports, I knew that I needed to do something with that. If that had not happened, I would not have started this company.”

6.5.2 Economic mission

“I think the economic objectives are the most important and secondly the social. You can have the best intentions socially and environmentally, but you can only achieve those when the business is economically strong. Although the social focus can also help to make the business stronger.”

Table 22. Configurations Economic Mission

Economic Mission	1	2	3	4	5
Social innovation			⊗		●
Social objectives		●		●	⊗
Economic objectives	●				⊗
Entrepreneurial experience		●	●	●	
Unmet need	⊗		●	⊗	●
Raw coverage	0.37	0.52	0.43	0.31	0.32
Unique coverage	0.08	0.07	0.06	0.09	0.09
Consistency	0.96	0.93	0.99	0.91	0.99
Solution coverage:	0.88				
Solution consistency	0.91				

We found five configurations that are sufficient to produce a dominant economic mission. The first configuration combines economic goals and a lack of personal unmet needs. The second configuration combines social goals and entrepreneurial experience. The third configuration comprises the lack of social

innovation combined with entrepreneurial experience and unmet needs. The fourth configuration combines social goals, entrepreneurial experience, and the lack of unmet needs. The fifth configuration combines social innovation, the lack of social and economic goals, and the presence of personal unmet needs. In this configuration, it seems that social innovation and personal unmet needs may substitute the economic and social missions' effect. The consistency of this solution is .91 and solution coverage .88, while the raw coverage ranges between 0.31 and 0.52, and the unique coverage ranges between 0.06 and 0.09. All the scores exceed the benchmark thresholds (Greckhamer et al., 2018; Ragin, 2008; Schneider & Wagemann, 2012).

As with the previous mission type, we see that the social and economic objectives are often synergistic and are not regarded as a dichotomy. While we did expect a stronger focus on the economic objectives in this mission type, we did not find that they had a strong presence in the configurations of this mission type. This objective and its absence only showed once. However, in the interviews, the economic rationale returned more than once: *"The economic part, that is truly necessary. We need a healthy operating budget to set up a company and need some savings for unforeseen things, such as investments."* Yet another respondent (9) indicated that: *"Someone who does purely social work must also earn a living. There is nothing wrong with earning money and you can do that in different ways."* Here, instead of experience being a boundary condition, it appears that the motivation for starting a business is social, but entrepreneurial experiences contribute to a more economic rationale, which is a substitute for the social and economic objectives." According to respondent ID 59: *"My previous work experience contributed 100% towards this business idea. I also have personal experience with the problem, so it is a little bit of a mix. However, most comes from my professional background."* We also found the combination of experience and unmet needs. In addition, *respondent ID 131 mentioned: "This company [small-scale living facility for people with dementia] was started because two friends and I sat down [to discuss the idea]. We had professional and personal experience with the topic. In my case, it was my father who lived with us for five years and was demented [...] previous experience with setting up other companies has helped. Along the way you gain experience and learn to stay focused."*

6.5.3 Hybrid mission

"I do not think it will take long before this social enterprise hype is over and all the companies have become more social, also the 'commercial' ones. The principles of

making a profit and 'black numbers' also apply to social enterprises. For me, it is what you do with the profit and how you to distribute it. Are the shareholders going on holidays or is it going to be reinvested so that the company can pursue its social goals better?"

Table 23. Configurations Hybrid Mission

Hybrid	1	2	3	4	5
Social innovation			●	●	⊗
Social objectives				●	●
Economic objectives	●	●	⊗		
Entrepreneurial experience		●		⊗	●
Unmet Need	⊗		●		
Raw coverage	0.41	0.55	0.40	0.33	0.24
Unique coverage	0.07	0.09	0.06	0.01	0.02
Consistency	0.93	0.96	0.97	0.97	1.00
Solution coverage:	0.82				
Solution consistency	0.92				

We found five configurations that are sufficient for a hybrid social mission. The first configuration combines economic goals and a lack of personal unmet needs. The second configuration combines an economic goal and entrepreneurial experience. The third configuration combines social innovation, personal unmet needs, and a lack of economic goals. The fourth configuration combines social innovation, social goals, and a lack of entrepreneurial experience. The fifth configuration combines a lack of social innovation, social goals, and entrepreneurial experience. The solution consistency of this solution is .92 and the solution coverage .82, while the raw coverage ranges between 0.24 and 0.55, and the unique coverage between 0.01 and 0.09. All the scores exceed the benchmark thresholds (Greckhamer et al., 2018; Ragin, 2008; Schneider & Wagemann, 2012).

Since there was no overlap between the cases in the different samples, it is interesting that the hybrid mission type has three unique configurations, which provide evidence that a unique interplay of conditions is indeed needed for a more balanced stance on hybridity. In addition, the two configurations that overlap with the social and economic missions may indicate that a hybrid mission is a combination of the social and economic missions and that, depending on the focus, one mission type may be slightly more dominant. Many of the above interview quotes also seem to indicate the duality between the economic and social rationales.

Social innovation was more present in the hybrid mission than in the social and economic ones, although social innovation returned in different combinations. According to respondent ID 37: *"I am the first to suggest this total approach, and the way in which it needs to be financed in the future, namely that the money to guide the guys [often males aged 17-25] come from the work. There should be no subsidies or gift from others. No one has suggested this idea, not even the people who studied it."* This can indicate a link between the innovativeness level and an economic rationale. We did not find a combination of the social and economic objectives in this mission type, which may be expected when a social and economic mission are combined. Nonetheless, in the interviews, many of the entrepreneurs indicated that they had both a social and economic rationale. According to respondent 131: *"We want to create something that is sustainable over time. In a few years, our business needs to be transferable to others. It should then be interesting for others. If you can't earn a dime with it, nobody wants to take over, even if they are very idealistic."* In addition, personal unmet needs and entrepreneurial experience's influence on the hybrid mission is proportionately less than on the other mission types.

In sum, all the entrepreneurs in our sample displayed some form of hybridity and clearly thought about earning money while doing good. We found that there were 'pure' hybrid social entrepreneurs, who scored high on both the social and the economic missions; economic hybrids with a slightly more dominant economic mission; and, lastly, social hybrids with a slightly more dominant social mission. The scatterplot below illustrates our findings. If a social or economic mission could indeed be a tradeoff of an opposing mission, there would be a linear line. As we can see, there are many forms in which the missions are combined within an enterprise.

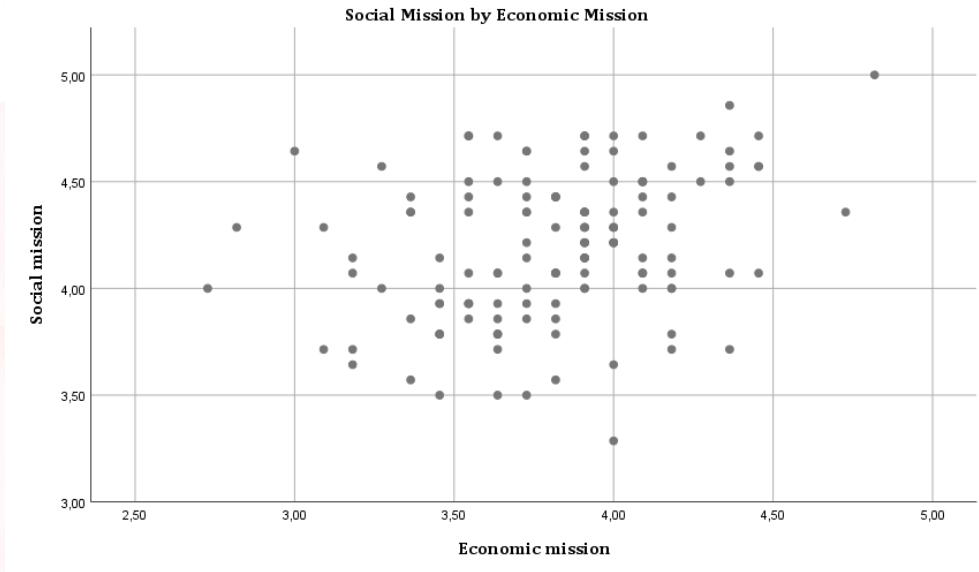


Figure 14. Plotted Social and Economic Mission

6.6 Discussion

In our research into the combination of conditions that results in a dominant focus on a social, economic or hybrid mission or (nascent) social enterprises, we found twelve unique configurations in total and a set of unique combinations of conditions per mission type. We found that all the sample entrepreneurs were hybrid social entrepreneurs, meaning that their dual mission is not a dichotomy. In addition, the conditions that are more socially or economical orientated, did not necessary result in that dominant mission type. This finding supports the notion that the missions can exist next to each other and may be synergistic in nature. The social entrepreneurs were clear that social value creation is only possible if the business model is healthy and if an entrepreneur can sustain it over time. We found that, besides prosocial orientation, entrepreneurs also had an economic rationale. An explanation for this finding may be that owing to the recession the sample entrepreneurs' become more aware of the need for a sustainable business model, or of the economic aspects of their business, since they are less dependent on donations or gifts from others or subsidies.

So far, the dual mission is seen as a juxtaposition, our findings show a different picture. Our findings support the notion that social enterprises can indeed be placed on a continuum according to whether they have a more social or a more economic orientation. Based on the number of configurations, we can view the two mission types as 'sliders' that move on the continuum and, together, result in a form of hybridity. At the least, a basic level of economic thinking is required to be fully emerged in a social business. While at the other hand, the social entrepreneurs are driven by new opportunities to create social value for themselves and/or for others. To help future research efforts, we used these insights to develop a typology which adds on the work of Lepoutre et al. (2013). In their article they make a distinction between NGOs, not-for profits, social and economic hybrid enterprises to for-profit social enterprises, which served as input for our typology.

Social mission	High	Social Hybrids (4 configurations) N=21	Pure Hybrid (5 configurations) N=40
	Low	Indistinct* N=42	Economic hybrid (5 configurations) N=30
		Low	High
		Economic mission	

Figure 15. Typology of Social Entrepreneurs

*Since this group consists of <.50 of both mission types, it could not be included in the FsQca analysis.

An organization's mission provides insights into why an organization exists and how it should behave (Grimes, Williams, & Zhao, 2018). We found that the social or economic objectives do not necessarily influence the social enterprise's mission type. This may be owing to the motivations for starting an enterprise which are more socially oriented with regard to personal unmet needs, or more economically orientated and influenced by novelty and entrepreneurial

experience. Our findings are in line with the finding by Douglas and Prentice (2019) that even though social enterprises may have a dominant social mission, they can have a positive attitude about making profits. The reverse seems to also be true: even though social enterprises consider themselves more economically oriented, they actually emphasize social objectives more, thus providing evidence that social enterprises are indeed a blend of social and economic objectives (Battilana & Lee, 2014; Lepoutre et al., 2013). Moreover, this finding contradicts the dominant logic that a more dominant social focus implies less focus on the economic mission (Stevens et al., 2015). We found that the assigned dichotomy between the economic and social mission is actually a blend with different nuances resulting in various combinations of social and economic missions. Parallel sliders, representing the economic and social missions, that move on the continuum best illustrate the different mission nuances.

Future research could examine how dual objectives relate to a dual mission in more depth, especially since this relationship may be the cause of tension or mission drift (Albert & Whetten, 1985; Battilana et al., 2012; Bruneel et al., 2016; Costanzo et al., 2014; Florin & Schmidt, 2011; Gidron, 2017; Moss et al., 2011; Smith et al., 2013; Stevens et al., 2015). In the interviews, however, there was no indication of conflict or tension. Our entrepreneurs balance their economic and social objectives in relation to their mission, which strengthens the organization. Even the more economically oriented include social objectives and vice versa and view this as their primary reason for existence. This finding was undescribed by the interview data as well. An explanation for this may be that the attention paid to the organizations' social or economic objectives differ based on the entrepreneur, their prior knowledge and experience, and the context in which they operate (Bacq & Alt, 2018; Germak & Robinson, 2014; Miller et al., 2012; Renko, 2013). This, in turn, results in the mission nuances. The entrepreneurs' influence on the organizational mission is very strong, especially in enterprises in the early stages of their development (Stevens et al., 2015). An influencing factor to this finding is that the entrepreneurs were in a training program to enhance their business and one of the selection criteria was that the business idea should be viable and sustainable over time. Another explanation is that the entrepreneurs, owing to the economic crisis, need to think more about sustaining their business over time since they can less depend on subsidies or gifts of others as a source of income. Yet another possible explanation is that entrepreneurs' characteristics or other conditions resulting in a more dominant economical focus may explain the lack of economic objectives and the presence of social ones. Moreover, it may be that while goals are important, an organization's

mission can manifest itself on other dimensions (Austin et al., 2006; Stevens et al., 2015, p. 1052). Similarly, future research should research the indistinct group in more depth, and examine which conditions result in a lack of focus on both the social and economic mission. These insights may be very useful to guide these entrepreneurs in developing their businesses.

We found more combinations with entrepreneurial experience with regard to the economic mission. As found in prior research, entrepreneurial experience helps with commercial thinking, the prelaunch, and overall success (Baron & Ensley, 2006; Hopp & Sonderegger, 2015; Lee & Battilana, 2013). Entrepreneurial experience may be a substitute for economic objectives, or may be less important due to it being an obvious aspect of setting up a business. On the whole, we find that entrepreneurial experience is linked to the organizational objectives, specifically the social or economic ones.

Since innovation is a key element of social entrepreneurship, we expected this condition to be more prominent in relation to the mission types. Social innovation was positively skewed in our sample, and the majority of entrepreneurs scored above average. A possible explanation for this is that the innovation strength varies (Douglas & Prentice, 2019), or that, in the configurations, other conditions, such as having a personal unmet need, are a substitute for this condition. On examining the interview data and the business ideas, it is clear that the number of truly very innovative business ideas was moderate. We do, however, find combinations of social innovation and unmet needs. This is in line with research on prosocial orientations (Barendsen & Gardner, 2004; Yitshaki & Kropp, 2016). Their personal unmet needs triggered many of the entrepreneurs. This finding is closely related to the literature on end-user innovation and entrepreneurship, which reveals that personal unmet needs trigger the opportunity recognition process in respect of innovations and business (Shah & Tripsas, 2007, 2012). We find the influence of personal unmet needs present in some of the configurations of the different mission types, albeit more in the social mission type, indicating that it may be a trigger for becoming a social entrepreneur. In the hybrid and economic missions, we also found that the lack of personal unmet needs influences the configurations, which is an indication that people who base their companies on a personal unmet are more socially oriented. Future research should examine the extent to which personal unmet needs are a driver for social entrepreneurship, and how it influences the organizations on the spectrum from social to economic mission

6.6.1 Limitations and Future Research Directions

No study is perfect, and all suffer from limitations. Our research is based on a small sample of nascent entrepreneurs in the Netherlands and on cross-sectional data. These limitations constrain the generalizability of our study, but we hope that future studies will include a larger number of participants and perhaps other cultural contexts. To avoid false positives, we split the sample and used the $>.5$ threshold, which resulted in high consistency scores. However, this made examining negated outcomes impossible. We used the Boolean 'and' combined with the dual mission, which could have biased the results rather than making an entirely new measure for hybridity. Furthermore, the choice of conditions and the measures' calibration could also have influenced the outcomes. This is an opportunity for future research. In addition, since most of our entrepreneurs were in the idea phase or had just recently started a company, their attention to the organizational objectives and mission type may differ from that of established entrepreneurs. Being in the idea phase can influence how these entrepreneurs perceived the objectives and mission. Moreover, our database consists of applicants of the Twente Move2Social training program. We tried to balance our interviews between those participants who were accepted for the program and those who were not. However, the participants had attended workshops on social entrepreneurial business models, which could have influenced their thinking about the economic and social objectives. We cannot entirely rule out that this may have been the reason why most of them regarded earning money as a requirement for social impact creation. Likewise, social desirability and recall bias could have been an influencer during the interviews (Christensen-Szalanski & Willham, 1991; John, 2001; Krumpal, 2013). In addition, we worked with a fairly homogenous group of nascent social entrepreneurs whose selection was based on various predetermined selection criteria, which could have yielded biased results. Future research should replicate this study with a diverse group of social entrepreneurs to control for the training program's influence. We did not examine the indistinct group. Examining the entrepreneurs who have $<.50$ scores on both missions is very interesting for future research, especially when this is linked to venture success. We are currently working on the robustness analyses and could not report the outcome at the time of writing this chapter. Future research should assess the relationship between the organizational goals and the mission types, and whether this is due to organizational aspects, or the calibration cut-offs and operationalization of the constructs used in this study. In addition, future research could examine the extent to which the (nascent) entrepreneurs'

personal characteristics, their prior knowledge, and entrepreneurial experience influence the prioritization of their organizations' dual mission.

6.7 Conclusion

The aim of this research was to find answers to whether personal, unmet needs, entrepreneurial experience, social innovation, and attention paid to the social and economic objectives are sufficient to produce entrepreneurial mission types for social enterprises and, if so, how they do so. Using a configurational approach with a sample of 133 (nascent) social entrepreneurs, we explored the extent the interplay of various conditions results in the social enterprise's dual missions. We contributed to the literature by developing a typology based on our findings which shows that the social and economic missions actually collaborate and that all enterprises are a hybrid form. This contradicts the current logic which is based on tension and that the missions are each other's tradeoff. There are on the one hand more socially driven social entrepreneurs, and, on the other, more economically driven social entrepreneurs. In addition, we found that multiple roads lead Rome, and in this case to a specific mission. By linking the various conditions to a mission, we gained a better understanding of the design features required to organize social entrepreneurs' different mission types. By relating the different conditions to the (nascent) enterprise mission, a better understanding is gained of how the conditions work together to produce the dominant mission type, which, in turn, results in the accumulated knowledge of the different organizational forms and how hybridity explains them (Doherty et al., 2014; Wilson & Post, 2013). We move away from the discussion on tension and the dominant prosocial orientation to focus on the continuum on which social enterprises operate. We therefore examine the organization's location on the continuum and address the synergetic nature of the entrepreneurs' dual mission. In doing so, we open the dual mission black box in order to understand the differences between the hybrid social enterprise's social and economic missions (Doherty et al., 2014; Hoogendoorn, 2011; Wilson & Post, 2013).

This research therefore moves beyond the dominant social mission in social enterprises. In line with the continuum approach (Young & Lecy, 2014; Young et al., 2016), our findings show that social enterprises can be placed on a spectrum in terms of their social and economic mission. We, however, move away from the 'trade-off' logic and add to the literature on how the different combinations of conditions affect the organizations' location on the spectrum. Our insight into how social entrepreneurs use their mission synergistically will help support

entrepreneurship in the future. We found that different combinations of conditions result in different dominant mission types. Each mission type also had unique configurations and a different combination of factors, providing support for equifinality, data asymmetry, and conjunctural causation (Ragin, 2008; Schneider & Wagemann, 2012). Nonetheless, all of the examined enterprises were some form of hybrid organization. We found that the combinations of conditions can be a substitute for one another, as can the lack and presence of different conditions within the configurations that result in a dominant mission type. In the same mission types, we found, for instance, the presence and absence of unmet needs, economic objectives, entrepreneurial experience, and social innovation, thus providing evidence of the data asymmetry. In so doing, we contribute theoretically to the “how” of a theoretical contribution as described by Whetten (1989), since our research examined how the different conditions are interrelated to produce a dominant mission type and to delineate patterns that can advance the social entrepreneurship field.

Our findings are specifically useful for entrepreneurship support by providing insights into the difference in the perceived importance of the organization’s social and economic missions and how different conditions affect the mission subsequently. Moreover, these insights contribute to our understanding of the configurational approach’s merits for social entrepreneurship research. By using FsQca, we went beyond examining the mere effects of the supposed independent conditions on the outcome conditions, but examined the interplay of conditions that affect the social enterprise’s mission, thus gaining an understanding of the combinations of causes that result in the outcome of interest (Kraus, Burtscher, et al., 2017; Kraus et al., 2018; Russo et al., 2018; Woodside, 2014, 2018). Likewise, by using a Likert scale to examine social enterprises’ dual mission, we acknowledge that both can be equally represented by not forcing the entrepreneurs to choose between them. Consequently, this paper also makes a methodological and measured contribution to the social entrepreneurship field.

Appendix

Table. 24 Calibrated Scores

Condition	5/95 (a)	10/90 (b)	25/75 (c)	Totals (d)
Social mission	(SMA,66.59,5.50,7)	(SMA,65.59,50.52,4)	(SMA,62.559,55)	(SMA,63,35,7)
Economic Mission	(EMA,46,39,5,32,7)	(EMA,44,39,5,34)	(EMA,42,39,5,37)	(EMA,43,2,24,4,8)
Social innovation	(SI,39.5,33,5,24)	(SI,39,33,5,28,5)	(SI,36,33,5,30,5)	(SI,36,20,4)
Unmet need	(UnmetT,9,5,9,2,5)	(UnmetT,8,5,9,3)	(UnmetT,7,5,5,9,3,4,5)	(UnmetT,9,5,1)
Entrepreneurial experience	(EntExt,4,3,2)	(EntExt,3,6,3,0,52)	(EntExt,3,2,1)	(EntExt,3,6,2,0,52)
Social goals	(SOOB,75,47,5,25)	(SOOB,65,7,5,27,5)	(SOOB,60,47,5,35)	(SOOB,90,50,10)
Economic goals	(ECOB,47,5,27,5,7,5)	(ECOB,45,27,5,14)	(ECOB,37,5,27,5,19)	(ECOB,72,40,8)

Table 25. Descriptive Statistics

Condition	Mean	Std.Dev	Min	Max	N Cases	Missing
Economic objectives	30,25	13,10	0	80	135	7
Social objectives	50,06	13,14	12	100	135	7
Unmet need	6,37	2,14	2	10	142	0
Entrepreneurial experience	2,81	0,75	2	4	142	0
Social Mission	58,72	4,71	46	70	133	9
Economic Mission	39,45	3,99	27	48	133	9
Social innovation	33,52	4,90	14	40	140	2

Table 26. Test of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Social mission	,982	133	0,21
Economic mission	,978	129	0,14
Social innovation	,835	141	0,00
Social objectives	,965	135	0,00
Economic Objectives	,954	135	,000
Unmet Needs	,953	142	,000
Entrepreneurial experience	,795	142	,000
a. Lilliefors Significance Correction			

if the **Sig.** value of the Shapiro-Wilk Test is greater than 0.05, the data is normal.

Table 27. Outcome Necessary Analysis

Conditions tested	Social mission		Economic mission		Hybrid mission	
	Consistency	Coverage	Consistency	Coverage	Consistency	Coverage
Social innovation	0,69	0,96	0,66	0,94	0,86	0,84
~Social innovation	0,52	0,92	0,65	0,94	0,34	0,93
Personal unmet need	0,69	0,89	0,69	0,83	0,72	0,84
~Personal unmet need	0,47	0,93	0,49	0,88	0,47	0,90
Social objectives	0,71	0,86	0,52	0,84	0,62	0,85
~Social objectives	0,45	0,96	0,67	0,86	0,58	0,89
Economic objectives	0,62	0,95	0,66	0,88	0,75	0,88
~Economic objectives	0,60	0,95	0,57	0,89	0,50	0,93
Entrepreneurial experience	0,62	0,92	0,72	0,83	0,69	0,85
~Entrepreneurial experience	0,56	0,90	0,49	0,93	0,53	0,93



Chapter 7: General Conclusions and Discussion

In this dissertation, I have examined lead user-based social entrepreneurship, focusing on whether personal unmet needs and lead user characteristics influence starting a social business. The lead user construct consists of being ahead of a trend and having high expectations of the developed solution in solving a personal unmet need (Von Hippel, 1986). Personal unmet needs, derived from dissatisfaction with the current situation or the lack of a product or service, trigger users to start innovating (Belz & Baumbach, 2010; Franke & Shah, 2003). Because of the expected linkages between the literatures on (lead) user-innovators and entrepreneurs and social entrepreneurs we examined this phenomenon more closely. Because of the importance of personal unmet needs in both the lead user innovation and entrepreneurship process as the social entrepreneurship process, this dissertation has two parts, with part 1 focusing on lead user-based social entrepreneurship and part 2 on personal unmet needs.

The overarching research questions of this dissertation were: *Do lead user-innovators become social entrepreneurs; if so, how?* And: *What are personal unmet needs' roles in this?*

7.1 Research Findings

7.1.1 A Review of the Literature: From Lead User-innovator to Social Entrepreneur

In Chapter 1, we reviewed the literature, laying the groundwork for studying lead user-based social entrepreneurship. The goal was to distill characterizing elements in the lead user innovation and social entrepreneurship literatures and assess its linkages and commonalities by conducting a systematic literature review based on Wolfswinkel et al.'s (2013) approach. At the time, there was no research into whether lead user-innovators are active in the social domain, whether their characteristics contribute to solving social needs, and whether or not they become social entrepreneurs was a field for future inquiry (Shah & Tripsas, 2007). We explored the conditions that result that lead users become active in the social domain. To guide the research efforts, we formulated research question 1: *What is the theoretical basis of lead user-based social entrepreneurship, and how are the literature streams on lead user innovation, user entrepreneurship, and social entrepreneurship related?*

The research has assumed that lead user-innovators had no incentives to commercialize their innovations, and most studies have focused on describing the innovation process and distinguishing characteristics of the user innovation process (Hienerth, 2006; Raasch et al., 2008; Schreier & Prügl, 2008). Sticky information as well as market and governmental failures are seen as the reasons why in (lead) user innovation, unmet needs surface, which users then seek to solve (Lüthje et al., 2005; von Hippel, 1994). Market failures occur when markets fail to efficiently allocate resources (Alvarez et al., 2015; Bator, 1958). Governments remain the most important actor to ensuring societal wealth; however, owing to budget cuts, governments have withdrawn or are withdrawing from the social domain. Failures occur when governments' interventions into the economy, or their attempts to correct market failures, are unsuccessful, and result in inefficient and or exclusive resource allocation (Le Grand, 1991; Santos, 2012; Wolf, 1979). The higher the expected benefits a solution will yield, the higher the likelihood that a user will innovate. If – owing to product-related knowledge, usage experience, and prior knowledge – a user is also ahead of a trend, an innovation is also highly innovative (Franke et al., 2006; Lüthje, 2004). Users often innovate within a user community that provides valuable feedback on the design features and help with the innovation's diffusion (Franke & Shah, 2003; Lüthje et al., 2005). Most research into user innovation has argued that it occurs in small-scale niches, in which expert users experiment with new offerings (Franke et al., 2006; Jeppensen & Frederiksen, 2006; Lüthje et al., 2005). However, users are also active in the household sector (Flowers et al., 2012). User entrepreneurship was initially viewed as a separate phenomenon, in which user entrepreneurs' distinguishing characteristics were that the user innovation process applies to them and that they experience a need through a usage that is currently not met by the market and that serves as an incentive to develop a prototype to satisfy their own needs, often without even thinking about commercializing that solution. Another aspect is that the innovation's development often occurs in close collaboration with members of a community to which the user belongs (Shah & Tripsas, 2007, 2012).

The main takeaway of this chapter was the commonalities and linkages found between lead user-innovators and social entrepreneurs who innovatively solve unmet needs caused by market and/or governmental failures, with the innovation process and the commercialization process seldom driven by non-pecuniary motives, and with the solutions often targeting community enhancement (Austin et al., 2006; Haugh, 2007; Schreier, Oberhauser, & Prügl,

2007; Shah & Tripsas, 2007; Thompson, 2002). User-innovators and social entrepreneurs are highly committed to their product fields (Lüthje et al., 2005; Thompson, 2002). Sticky information makes it harder to transfer need information (von Hippel, 1994, 1998), which may be especially difficult in the social domain, with established manufacturers seldom seeing the merits of serving small consumer populations. We have highlighted the role of personal unmet need and market and government failure as a proxy for lead user-based social entrepreneurship. The extensive literature review provided the basis for developing a conceptual model that served as the input for the following papers.

7.1.2 From Lead User-innovator to Social Entrepreneur: An Illustrative Case Study

This chapter contained three illustrative case studies. This chapter's objective was to examine the conceptual model and to find evidence that the theoretical assumptions about lead user-based social entrepreneurship merit future research. We examined the factors that influence transition from user-innovator to social entrepreneur. To guide the research, question 2 was: *What are the defining elements of lead user-based social entrepreneurship?* Owing to the lack of research into this phenomenon, we chose a case study research design (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2009), selecting the cases based on purposive sampling. The conceptual model derived from the systematic literature review guided the research efforts in this chapter.

All three cases showed that the innovation process started after a personal unmet need was experienced owing to an exogenous event, which made these social entrepreneurs aware of the market and governmental failures at work, which hindered the availability of products that met their needs. Owing to the changes in their lives, they gained in-depth knowledge about their system of usage, wants, and needs. Their life experiences triggered their prosocial orientation. This is in line with previous findings (Barendsen & Gardner, 2004; Hahn & Ince, 2016; Renko, 2013; Wood et al., 2013). It also created a sense of urgency and provided useful insights into market demands. All three had developed a prototype because no products met their needs. They tested their prototypes, getting feedback from a user community in later stages, although this was not a determinant in each innovation's diffusion. These latent users were not until their lives changed and were therefore also not part of a user community. Here, the function of the community as a resource deviates from the research into user innovation and entrepreneurship (Shah & Tripsas, 2007).

The main takeaway from this chapter was that the three cases that were examined in-depth showed that lead user-based social entrepreneurship is not only a theoretical phenomenon, but also exists in the world. As theorized, personal unmet needs come into existence owing to market and governmental failures, which seem especially present in the social domain. Thus, these failures strongly influence market characteristics. However, the community's role seems to deviate, being utilized only in later stages; it did not contribute to opportunity recognition, as implied by earlier research. Another interesting finding was that these users only became users after an exogenous life event that made them search for a solution to their own needs. The insights from this study served as input for Chapter 4.

7.1.2 From Lead User to Social Entrepreneur: How Lead User Characteristics Influence Starting a Social Business

In this chapter, we tested the lead user characteristics in a sample of 133 (nascent) social entrepreneurs enrolled in the Move2Social training program. We combined quantitative (survey) and qualitative (interviews) research, conducting a multiple-hierarchical regression analysis to examine whether lead user characteristics influence starting a social business. Our objective was to answer research question 3: *To what extent do personal unmet needs and lead user characteristics significantly contribute toward establishing a social business?*

As described, and based on the findings from the previous chapter, we used several theoretical underpinnings for this research. Personal unmet needs is a key trigger to becoming a lead user (von Hippel, 2005). Further, lead users are ahead of a trend, experiencing needs that later become general in the (mass) market. This can mean facing needs before others, or a proposed solution being novel (Franke and Shah 2003). When solutions address needs that are important to users, they are more likely to innovate so as to try to find a solution (Franke et al., 2006; Lüthje, 2004; von Hippel, 1988). The higher the innovation-related benefits are, the higher the dissatisfaction with the current situation (Bogers et al., 2010). Yet, having a personal unmet need and lead user characteristics alone are not enough to innovate. A user's skills levels, combined with personal experience and technical knowledge, influence the innovation likelihood (Lüthje et al., 2005; Schreier & Prügl, 2008). User-innovators are usage experts and have the product-related knowledge needed to innovate (Luthje, 2004). Based on this, we incorporated the following variables: having a personal unmet need, being ahead of trend, high expected benefits, user experience, and product-related

knowledge. We used personal unmet needs, lead user characteristics, user experience, and product-related knowledge as independent variables to test how they influence starting a social business. In 19 interviews, we also probed for these characteristics.

The main takeaway from this study is that high expected benefit influences the starting of a social business. The interviews showed that personal unmet needs and usage experience are also key contributors to this process. Thus, we found partial evidence of user-based social entrepreneurship. Personal unmet needs reside in market and government failures, creating room for social enterprises to take complementary roles in instances where these forces fall short. High expected benefit was significant in this model. Expected benefits derive from dissatisfaction and unmet needs, and are linked to innovation likelihood (Franke et al., 2006). The lead user characteristic ahead of trend was insignificant for starting a social business. Usage experience came up in the interviews and was almost significant, while product-related knowledge was not. Most of the entrepreneurs used their own experience in opportunity recognition. This is aligned to the work of Baron (2006), in which prior knowledge and alertness based on dissatisfaction propelled opportunity recognition.

7.1.3 (Social) Entrepreneurship by Refugees: An Explorative Study of Refugees' Networks and How Previous Experiences, Personal Unmet Needs, and Unique Life Experiences Influence their Prosocial Orientations

Chapter 5 provided a deeper understanding of refugee entrepreneurship. To examine this, we used a case study design with a mixed-method approach, combining in-depth interviews (n = 7) and survey data (n = 36). We collected data from two Dutch entrepreneurial training programs focused on refugees in the Netherlands. In this chapter, we answered research question 4: *1) To what extent do personal experience and prior knowledge influence refugees in becoming (social) entrepreneurs in a host country, 2) which barriers can we detect, and 3) what are their networks' roles in this?*

The entrepreneurial process starts with an idea, the recognition of an opportunity that is utilized (Shane & Venkataraman, 2000). Awareness of exclusion shapes latent refugee entrepreneurs' contextual interpretations, and – in turn – how they identify and pursue opportunities. Entrepreneurial cognition theory helps us to understand why certain individuals recognize opportunities,

while others do not (Mitchell et al., 2002). Here, key factors are the influences of previous knowledge, prior learning, and entrepreneurial experience, which positively influence the likelihood of an individual becoming an entrepreneur (Dimov, 2007; Shane, 2000). Likewise, motivations are essential to transforming an entrepreneurial intention into action (Yitshaki & Kropp, 2016, p. 546). A founder's personal motivations are often crucial in establishing an organization and in determining the value it creates (Bacq & Janssen, 2011; Short et al., 2009). Specific life events may influence prosocial entrepreneurial behaviors (Yitshaki & Kropp, 2016). An entrepreneur's personal circumstances can then be the basis for venture creation (Hahn & Ince, 2016). Personal unmet needs owing to hardship or radical changes in one's life can spur prosocial opportunity recognition. The knowledge accumulated in solving personal hardship can then be utilized to help people who experience the same (Asarkaya & Keles Taysir, 2019; Barendsen & Gardner, 2004). The literature on lead user entrepreneurship informs us that personal unmet needs spark individuals' opportunity recognition processes, resulting in their becoming entrepreneurs solely owing to their personal experiences (Hienerth, 2006; Shah & Tripsas, 2007, 2012). Access to a network is a key contributor to how nascent entrepreneurs' success influence their opportunity recognition (Aldrich & Zimmer, 1986; Stuart & Sorenson, 2007) and how the liability of newness can be reduced (Stinchcombe, 1965).

The main takeaway of this study is that prior knowledge and entrepreneurial experience can hinder success, and need to be contextualized in order to help entrepreneurs, and that the barriers refugees experience are severe. We specifically added to the literature on de-contextualized prior knowledge as an influencer of the entrepreneurial process. While the sample entrepreneurs used their knowledge and experience to start a company in their host country, this did not result in the development of achievable opportunities. The entrepreneurs were copying-and-pasting in the new context without assessing whether their ideas were realizable. Personal experience and prior knowledge increased prosocial orientation. We found evidence for the influence of extreme life events on prosocial attitudes. While the interviewees indicated that fleeing their home country and starting anew made them socially more aware, this was not incorporated into their business ideas, owing to a lack of knowledge about social entrepreneurship as well as owing to (contextual) barriers. Many refugees are constrained by their situation, resulting in necessity-driven entrepreneurship, which is a barrier to opportunity recognition, preparation, and execution as well

as a barrier to utilizing their networks, which is aggravated by their limited language skills; non-transferrable skills also result in severe barriers.

7.2.2. The Interplay of Conditions that Affect Social Entrepreneurs' Focus on their Organization's Mission: The Configuration of Conditions that Result in a Dominant Social, Economic, or Hybrid Mission

In this chapter, we focused on the missions of (nascent) social enterprises, using a configurational approach that explores how different conditions (variables) work together to produce an outcome (a mission type). Social enterprises are considered to be hybrid organizations that balance a social and an economic mission (Battilana et al., 2012; Stevens et al., 2015). This balancing act results in social enterprises being placed on a continuum, ranging from more socially oriented, to more economically oriented (Austin et al., 2006; Hahn & Ince, 2016; Peredo & McLean, 2006; Young & Lecy, 2014). Choices concerning the organizational objectives and the founder's characteristics influence the business model and thus a venture's success (Bacq & Janssen, 2011; Saebi et al., 2019; Short et al., 2009). To date, the research has addressed social entrepreneurs' motivations as predominantly social (Stevens et al., 2015). However, social entrepreneurs can also be motivated by other aspects (Douglas & Prentice, 2019). However, this area needs more research (Muñoz & Kimmitt, 2019). To examine the complexity of conditions that produce a social enterprise's mission, we used FsQca, a set-theoretical method to examine the interplay of conditions that work together to produce an outcome; here, an entrepreneur's dominant focus is on a social, economic, or hybrid mission. We answered the research question whether personal unmet needs, entrepreneurial experience, social innovation, and attention to social and economic objectives are sufficient to produce entrepreneurial mission types for social enterprises and, if so, how. We combined interviews (n = 17) with FsQca on a sample of 133 (nascent) social entrepreneurs.

The main takeaway of this research is that many roads lead to Rome; in this case, to a specific mission type. With this research findings, we move beyond the dominant social mission in social enterprise, and move away from the 'trade-off' logic and add to the literature on how the different combinations of conditions affect the organizations' location on the spectrum. Every mission type also had a unique configuration and a different combination of factors, providing support for equifinality, data asymmetry, and conjunctural causation (Ragin, 2008;

Schneider & Wagemann, 2012). We found unique combinations that resulted in a more dominant social mission, a more dominant economic, and a hybrid mission; yet all the sample enterprises can be viewed as hybrids. Their missions were synergistic, indicating that, besides prosocial orientations, these entrepreneurs also had an economic rationale, which was not per se related to their dominant mission type. Hybridity came natural to the respondents. They did not think about mission dichotomy or tradeoffs, as mentioned by scholars who have examined the conflicts that can arise in hybrid organizations (Albert & Whetten, 1985; Battilana et al., 2012; Bruneel et al., 2016; Costanzo et al., 2014; Florin & Schmidt, 2011; Gidron, 2017; Moss et al., 2011; Smith et al., 2013; Stevens et al., 2015). In the interviews, we found that these entrepreneurs did not experience tension. This finding opens the door to examining the synergy between mission types, instead of juxtaposing these. These findings provide support that social enterprises can be placed on a continuum according to whether they have a more social or a more economic orientation. We developed a typology based on the findings that can be used in future research. Based on the mission types' configurations, the two mission types can be viewed as sliders on a continuum, resulting in a form of hybridity.



Figure 16. Sliders of the Missions

Our findings are in line with the findings of Douglas and Prentice (2019) – that although social enterprises may have a dominant social mission, they can have a positive attitude toward profit. Based on these findings, we developed a typology to guide future research efforts. Relating the different conditions to a (nascent) enterprise's mission deepens understanding of how conditions work together to produce a dominant mission type, which – in turn – increases accumulated knowledge of the different organizational forms and how hybridity explains them (Doherty et al., 2014; Wilson & Post, 2013). The insights into how social entrepreneurs use their mission synergistically will support entrepreneurship in the future.

7.3 Main Conclusions

Chapters 2 to 4 focused on lead user characteristics, and I found evidence that high expected benefit influenced the starting of a social venture. Personal unmet needs and high expected benefit, caused by dissatisfaction with the current offerings as well as market and governmental failures, influence these entrepreneurs' prosocial orientations as well as the starting of a social business. I specifically addressed the roles of market and governmental failures (institutional voids) in the creation of unmet needs that an entrepreneur seeks to address based on their experiences. This dissertation singled out the role of personal unmet needs as a trigger of opportunity recognition for lead user-innovators and social entrepreneurs. Another interesting finding of this dissertation is the community's roles in the innovation process and the entrepreneurial process. Although the sample individuals utilized a community for market feedback and diffusion, this was only in a later stage, after the product development.

Although the social entrepreneurs considered themselves to be highly innovative, ahead of trend was insignificant in the statistical model. A partial explanation for the high innovation scores is the respondents' bias to objectively self-assess. There were some novel business ideas, but they were not highly innovative. Another partial explanation is the way ahead of trend component was operationalized. The questions I used, and derived from other scholars in the field, focused more on developing and prototyping, jargon that may be too technical and that the respondents may not have related to well. The jargon may not resonate with the sample entrepreneurs and they may have trouble viewing themselves or their business idea in that regard. Another – related – explanation is that some of these individuals became users owing to an exogenous event, and were not users before something changed in their lives that led them to search for solutions, indicating that the ahead of trend component did not relate to their experiences. Another related issue is with the fact that their needs will become general. For some social issues, this will never be the case since they are so specific. Similarly, being ahead of a trend does not have to relate high-tech solutions; it could also be the enhancement of usage and functionality. This fits Hart and Christensen (2002) research into disruptive innovations. The fact that ahead of trend was found to be statistically insignificant does not diminish the application of the (lead) user innovation literature in the social domain.

Following Hienert and Lettl (2017, pp. 2-3), the lead user construct has multiple dimensions, which depend the scores on the two lead user characteristics (between high and low). Notably, the lead user construct is domain-specific, trend-specific, and gradual, resulting in degrees of lead userness. Here, I differentiated between the four user types (see Figure 17). When a user has a low score on both ahead of trend and expected benefit, they are a *regular user*. When a user scores high on ahead of trend and low on high expected benefit, they are an *expert user*. When a user scores low on ahead of trend and high on expected benefit, they are a *user-innovator*. Finally, when a user scores high on ahead of trend and high on expected benefit, they are a *lead user*.

Ahead of trend	High	III Expert User	IV Lead User
	Low	I Regular User	II User Innovator
		Low	High
		Expected benefits	

Figure 17. The User Typology adapted from Hienert and Lettl, (2017, p. 3)

Based on the qualitative and quantitative empirical evidence in Chapters 2 to 4, I can answer the overarching research questions: *Do lead user-innovators become social entrepreneurs and, if so, how? What are personal unmet needs' roles in this process?*

The answer is that, in some instances, lead users become social entrepreneurs; however, it is rare for an individual to score high both on ahead of trend and high expected benefits. It is more likely is that user-innovators becomes social entrepreneurs, because they have high expectations of the innovation-related benefits; however, they are not ahead of trend. The high expected benefit component aligns with the social domain to a great extent and finds it origins in

market failure and governmental failure. Lead users are referred to as 'black swans' – they are very rare. Indeed, in this research it was much harder to find lead users who became social entrepreneurs. However, user-innovators become social entrepreneurs, and use the unique usage-related information they have gained through their personal unmet needs as a trigger for how they recognize opportunities. Usage experience, but not product-related knowledge, is also useful in this process. These findings can be partially explained by the origins of the lead user construct, which is in the industrial industry, where more technical knowledge is required to innovate; this may apply less in the social domain.

This dissertation highlights the roles of personal unmet needs caused by exogenous events or life changes as a trigger for the user-based social entrepreneurial process. Further, I have emphasized the roles of market and governmental failures as a trigger of the user-based social entrepreneurial process. Likewise, based on the data, I could confirm that users also undergo the same process in the social domain, although the role of the community differs and there is less of a focus on product-related knowledge.

The remainder of the dissertation focused on the roles of personal unmet needs in the (social) entrepreneurial process and how this affects a social enterprise's mission. Personal unmet needs irrefutably influence social entrepreneurs in starting a business and are linked to the prosocial orientation and – in a limited way – to social enterprises' missions.

7.3 Theoretical Relevance

This thesis has drawn on multiple theoretical perspectives to enhance our understanding of social entrepreneurs' opportunity recognition, enhancing the general understanding of the sources of opportunity recognition in entrepreneurship, which needs more insights (Acs et al., 2009). This is especially the case in social entrepreneurship research, where the literature is lacking at the individual, organizational, and institutional levels (Saebi et al., 2019). My research opens interesting avenues for research, contributing to a better understanding of (lead) user-based social entrepreneurship and possibly social innovation by lead users in a social context characterized by unmet needs. This research enhances understanding of de novo hybrid business model creation, where a social and institutional context influences an individual's motivations (Saebi et al., 2019).

7.3.1 Lead User-based Social Entrepreneurship

This research is the first to examine lead user-based social entrepreneurship and personal unmet needs' influences on the prosocial orientations of (nascent) social entrepreneurs and how this affects the businesses they start. By exploring lead user-based social entrepreneurship, this research contributes to the generation of knowledge and the advancement of these theories. Whetten (1989) provided useful guidelines to assess the theoretical relevance based on *what, how, why, who, where, and when*. *What* can be assessed via comprehensiveness and parsimony (p.490). This dissertation mapped the theoretical landscape in which lead users seek to become social entrepreneurs and distilled the factors that influence this process. In doing so, I found the linkages and commonalities of these streams of literature which help to guide future research efforts. Based on this, I developed a conceptual model that guided future research attempts.

There is a need to understand how context shapes the opportunity recognition process and the entrepreneurial process for social entrepreneurs as well as which elements foster innovation (Austin et al., 2006; Short et al., 2009). Using the literature on innovating (lead) users helps us to understand the various sources of innovative solutions developed and implemented by social entrepreneurs. This will help us to better understand the level of innovativeness as well as the antecedents of starting a social venture. Several of the triggers of the lead user innovation process resonate with the social entrepreneurial process, and this knowledge is valuable to understand the possible seeds of social innovation and entrepreneurship better. Likewise, insights from the (lead) user innovation and entrepreneurship literature may help to understand the specific knowledge endowments that social entrepreneurs use in starting their businesses (Short et al., 2009) and can be related to prosocial orientations and the motivations for starting a social business as well (Yitshaki & Kropp, 2016). By using the (lead) user innovation literature, I have responded to the call for more insights into the link between social innovation and social entrepreneurship (Phillips et al., 2015) as well as for more knowledge on the antecedents of starting a social business.(Hoogendoorn et al., 2010, Short et al., 2009).

Lead users start innovating to develop solutions for their unmet needs that form the basis of further opportunity development and application in the social domain on a broader scale (Shah & Tripsas, 2007). Insights from the lead user

innovation literature constitute a good basis to understand how social entrepreneurs recognize opportunities, and whether and how this process differs from those of other entrepreneur types (Robinson, 2006), and in doing so this widens our understanding of the field of entrepreneurship. Likewise, incorporating insights from the lead user innovation literature on the social domain help us to better understand the foundation and emergence of the social sector (Shah & Tripsas, 2007).

Second, this dissertation has enhanced understanding of the *how*. By examining this model in a case study (Chapter 3) and in a larger sample (Chapter 4), I have helped delineate patterns that constitute the *how*. These insights have provided the scope of the theoretical field and the focal phenomenon and have specified the factors that positively contribute to lead users becoming social entrepreneurs. To date, the research into lead user-innovators has only been conducted in limited settings (Shah & Tripsas, 2007). This dissertation has helped to establish this phenomenon in adjacent domains, where users create immense social value with their innovations, which they also commercialize.

The finding that specific life events can cause unmet needs that result in a lead user status has been made explicit and helps to better understand lead user-based social entrepreneurship. This work points out the influence of personal unmet needs as a trigger of becoming a user as well as the influences of prior knowledge and experience, product-related knowledge, and usage experience. To date, the research has assumed that the user's role is to use the product or service, and it has made assumptions about how users relate to a user community (Lüthje et al., 2005; Shah & Tripsas, 2007), which do not seem to apply in the social domain. Most social entrepreneurs do not belong to a user community beforehand, since they are not a user until something happens in their lives. Likewise, the research findings shed light on the applicability of the ahead of trend construct in the social domain and link this to disruptive innovations. Another contribution is the link between personal unmet needs and market and governmental failures as a proxy for lead user-based social entrepreneurship. These findings have challenged and extended existing knowledge (Whetten, 1989). By analyzing the behaviors of lead user-based entrepreneurs in a social domain, I have enriched the theoretical understanding of the sources of entrepreneurial ideas and drivers of new venture formation (Shah & Tripsas, 2012). This help us to better understand this process, and fine-tunes the existing literature, resulting in a better understanding of the social domain-specific influence on this process.

I have contributed to Whetten's (1989, p. 491) *why*, explaining and providing insights into the underlying dynamics that justified the selection of the focal constructs, and which help to glue to model together. Finally, the *who*, *where*, and *when* place limitations on the theory's application, propositions, and/or hypotheses. This dissertation has also enhanced understanding of how unmet needs influence prosocial orientations and the establishment of (nascent) social businesses. It has shed light on the unique knowledge of users who start a social business. The roles of market and government failures are key in this process. When there are no or inadequate products or services, users feel compelled to take action. By highlighting the roles of market and governmental failures, this dissertation has helped to answer the question which macro-level conditions 'produce' which types of social entrepreneurs and social enterprises – an issue that echoes a key concern in the institutional entrepreneurship literature (Saebi et al., 2019, p. 23).

7.3.2. Personal Unmet Needs and Refugee-based (Social) Entrepreneurship

The objective was to advance the literature on refugee entrepreneurship by examining the factors that influence these entrepreneurs in starting a business. By incorporating prior knowledge and personal unmet needs' influences on refugee entrepreneurs' (social) entrepreneurial opportunity recognition, this dissertation has contributed to a better understanding of refugees' entrepreneurial processes and has added knowledge on the barriers and drivers that are specific to this (Wauters & Lambrecht, 2008). The contextual factors unique to refugees offer exclusive insights into how unmet needs influence their entrepreneurial opportunity recognition. This research opens avenues to link personal unmet needs to refugees' entrepreneurial opportunity recognition and how this influences their prosocial orientations. I have specifically added to insights into how de-contextualized prior knowledge influences (social) entrepreneurship. The fact that prior knowledge hinders refugees in starting a business is vital information to help these entrepreneurs in their entrepreneurial endeavors. To date, the research has stressed the positive effects of previous entrepreneurial experience on venture success (Baron & Ensley, 2006). However, previous knowledge restricts these (nascent) entrepreneurs in starting a business. This research contributed to a better understanding of how prior knowledge affects entrepreneurship.

7.3.3. Personal Unmet Needs and Social Entrepreneurs' Mission Types

The current state of the field has focused predominantly on social motivations in starting a social business and has defined the dual mission generally in terms of conflict or tension. I have contributed to adding an alternative view to the literature. The developed typology embraces various hybridity types, and the FsQca analysis' findings, combined with the insights from the interviews, has helped to change the juxtaposition between social entrepreneurs' economic and social missions, allowing for the inclusion of multiple logics instead of the dominant tradeoff or tension view. Similarly, Saebi et al. (2019, p. 17) indicated that research is needed into the influences of the choice for a particular hybrid model, specifically, into how a social entrepreneur decides among alternative models and how this choice is affected by their characteristics, such as past experience, education, or their ability to identify, evaluate, and exploit opportunities in their external environment. With the research into social entrepreneurs' dominant mission, we have enhanced knowledge on the influencing factors of a par. We have responded to the call for more research into understanding the differences in the perceived importance of a social enterprise's economic and social missions (Stevens et al., 2015), and have contributed to the research into hybrid social organizational identities (Moss et al., 2011).

7.4 Practical Relevance

This dissertation's findings have contributed to a better understanding of the influences of personal unmet needs and lead user characteristics on starting a social business, and in doing so, I provided a better understanding of the antecedents to starting a business and better knowledge of the different nuances of which the field of entrepreneurship constitutes. The findings contribute to explaining alternative paths to starting a business and increase understanding of the links between specific life events, innovation, and starting a business. The findings show that several contextual factors such as market failure and governmental failure may trigger lead user-based social entrepreneurship. As users are sometimes better suited to develop solutions to existing unmet needs than established manufacturers, they are a valuable and importance source to take into account in meeting social needs. Likewise, I have found that, contextual conditions such as market and governmental failure, are a proxy for user innovation and entrepreneurship in the social domain. These insights are very

valuable for entrepreneurship support that targets businesses that do not have a predominantly economic rationale.

As noted in the Introduction, this research took a critical realist philosophy of science and worked according to the engaged scholarship research methodology (van de Ven, 2007). The objective was to enhance both theory and practice, considering the quadruple helix perspective that citizens, entrepreneurs, knowledge institutes, and governments can develop for a better entrepreneurship support ecosystem in the social domain. To date, user innovation's impacts are still underestimated by policymakers, partly owing to this innovation type's invisibility and the decision-makers' prior knowledge. This can negatively affect the exploitation of user innovations and the support users receive (Bradonjic, Franke, & Lüthje, 2019), which is troublesome, especially considering that user innovation will grow in the near future owing to changes in technologies, modularization, and digitalization as well as the increase in less expensive communication channels (de Jong, 2010), which make it easier for more users to innovate. This thesis has made user innovation more visible and has highlighted its relevance in an under-researched domain, helping to establish user innovation's legitimacy generally. I have provided in-depth insights into the workings of this process, so as to support users in their innovation attempts. As this thesis has pointed out, the contributions of users who develop novel products and services to overcome market and governmental failures are highly relevant, since they may be the only source to address these latent needs. Incorporating users' local knowledge about a specific context is needed if one is to develop appropriate solutions. Thus, this thesis has enhanced the visibility and has denoted the value of user innovation in the social domain, making user innovation more visible and highlighting its relevance in an under-researched domain.

7.4.1 Lead User-based Social Entrepreneurship

The insights in this dissertation can increase the number of user-based social entrepreneurial activities. This dissertation's insights have shed light on issues such as the drivers of or impediments to the process of starting an enterprise based on non-pecuniary motivations and may help to establish better policies and regulations to stimulate lead user-based social entrepreneurship, which is highly relevant, not only to empower individuals but also to enhance local economic growth by starting businesses. Thus, knowledge of social entrepreneurship based on personal unmet needs can help at an individual level,

and can also be applied as an instrument to address societal issues, such as the alleviation of poverty and the empowerment of communities.

The expectation is that social entrepreneurship will become more popular. More individuals and organizations realize that there is more than the financial bottom line, and include a double or triple bottom line, resulting in blended value (Zahra, Newey, & Li, 2014). Social enterprises play a vital role in solving societal issues, however they still face some challenges. For instance, in the Netherlands, such challenges are finances, how to interact with the government, how to measure and communicate to social objectives, how to explain the specific character of the enterprise and the business operation's outcomes and effects (Bosma et al., 2019). This dissertation's findings help to contribute to the dialogue on social enterprises. The findings help to visualize the antecedents and the different nuances of social entrepreneurship, which may make it easier to address the challenges described above. This research also contributes to a better understanding of who the social entrepreneur is by using the lead user literature and taking into account the entrepreneur's specific context. This helps to understand why certain individuals start a social business, which was still lacking according to Stephan and Drencheva (2017). Through this research novel insights are provided into the proxies for and antecedents of social entrepreneurship, which will help establishing better support policies and on a general level, enhanced knowledge of the field for practice.

7.4.2 Personal Unmet Needs and Refugee-based (Social) Entrepreneurship

According to the European Union (2018), the management of the refugee crisis is one of the main challenges the EU is facing, owing to its size and pace as well as the complexity of its social, political, and economic implications. It is foremost a humanitarian crisis on a global scale, but also a policy crisis that caught the EU unprepared and demands that policymakers take urgent and decisive actions as well as institute long-term measures in line with societal and labor market needs. This dissertation's findings can help to establish better regulations and policies to help refugees integrate into their host countries. A primary finding was that refugees want to start businesses out of necessity based on non-contextualized prior knowledge and do not fully utilize their network. This must be considered when developing support tools that seek to integrate refugees. As this thesis has indicated, there is much entrepreneurial potential among refugees, which can be a versatile addition to our entrepreneurial landscape. Social entrepreneurship

means different things around the world (Hoogendoorn et al., 2010). The context forms the social and economic conditions that influence social entrepreneurial activities (Kerlin, 2009). This is important to take into account in developing social entrepreneurial support policies. As Pernice (1994) indicated, the success of integrating refugees depends on governmental and societal attitudes as well as existing policies. Thus, knowledge about this group is crucial if one is to assist refugees in integrating into host countries and increasing the likelihood of successful integration. The fact that many cannot utilize their network, have little knowledge about the requirements of starting a (social) business, and are pushed into entrepreneurship must be considered when developing policies that target (entrepreneurial) refugees. The findings can also contribute toward (establishing) support programs to empower refugees to start businesses in host countries.

7.4.3 Personal Unmet Needs and Social Entrepreneurs' Mission Types

This dissertation's findings highlight that many conditions that work together to produce an outcome. The choice of a business model influences a business's eventual success. It is crucial to know how certain conditions work together to better understand this process: the individual entrepreneurial level, the organizational level, and entrepreneurship support. I found that many roads lead to Rome; this insight is very useful for understanding how social enterprises' missions are developed and formed. As mentioned, social enterprises still face many challenges and in-depth knowledge into the different operational forms is essential to ensure the organizations long-term success. With this research new light is shed on how synergistic the dual mission of these enterprises are, which is highly valuable for understanding social enterprises better. This research also helps one to understand the conditions that influence a venture's success.

7.5 Limitations

During an undergraduate student's defense that I attended, a supervisor asked: *What would you have done differently with the knowledge you have now?* I heard this question again at a PhD defense a few years later. Every study has limitations. With the passing of years, I view my research differently than in 2014. Had I known then what I know now, my research design and questions may have been different. However, since I don't have a time machine, I will outline the limitations of this research.

Most of this research took an explorative approach, which limits generalizability. Likewise, the user entrepreneurship research generally, specifically the social user entrepreneurship research, requires large(r)-scale longitudinal research that monitors the process from invention to commercialization and that investigates the short-term and long-term effects of innovations at the individual, organizational, and market levels. This thesis was based on cross-sectional data with a fairly small sample size. We focus on market and governmental failures as causes for personal unmet needs that trigger lead user-based social entrepreneurship. There are other causes to social entrepreneurship and lead user innovation, that we did not include, which can be regarded as a limitation. Another limitation was the possibility of a bias in the case selection, because random sampling was not applied and the aim was to find example cases that best represent the focal phenomenon (Gerring, 2007; Swanborn, 2013). This selection bias may also have occurred in the systematic literature review. Although I took steps to avoid this, by using (Wolfswinkel et al., 2013) method, I may have missed articles that should have been included. Since no study is completely objective, my beliefs and assumptions could also have influenced this research, which may have resulted in citation bias and may have influenced the article selection (Christensen-Szalanski & Beach, 1984). I conducted multiple interviews with persons in various training programs. A problem with interviewing participants about past events is the risk of memory recall bias or hindsight bias, which may yield a biased picture of what actually happened. Hindsight bias is “people’s tendency to alter their perception of the inevitability of an event once they know the outcome of the event” (Christensen-Szalanski & Willham, 1991, p. 147), while recall bias is the “systematic error due to differences in accuracy or completeness to recall to memory of past events or experiences.” (John, 2001, p. 153). These biases, as well as social desirability bias, and the interviewer effect (Krumpal, 2013), may also have influenced the interview findings. By using the surveys as input for the interviews, we sought to overcome these biases.

Further, several chapters used the case study research design, which has been criticized for a lack of generalizability (Gerring, 2007, 2012). Although the objective was not to generalize these findings of these chapters, but to explore the variables in different domains and examine whether more research into this phenomenon could be vindicated, I still note this. The training programs had selection criteria that were used to select the participants; this may have resulted in a homogenous group of participants, which may have influenced the findings’

internal and external validity, because it affects a sample's representativeness and the findings' generalizability (Gerring, 2012). I sought to overcome this by distributing the questionnaires prior to selection, to ensure that the largest participant pool could be utilized. However, this may have affected the participants' answers. Although it was clearly stated that the surveys would not affect selection, this may still have influenced the responses and may have resulted in a self-selection bias, a very common bias (Nederhof, 1985). I took efforts to prevent this by using semi-structured interview items.

Pernice (1994) listed several limitations concerning research with refugees, which we also encountered, besides the regular biases that may have occurred. Although the questionnaire was translated into Arabic, not all the participants could understand this well. There are many dialects in Arabic, and not all the participants had received education. Thus, it is possible that we did not interview participants who had a prosocial orientation based on a personal unmet need, because they did not fill this in. The opposite is also true. I interviewed participants who indicated that they had a personal unmet need that influenced their opportunity recognition process, while this in fact was not the case. Another limitation was their limited ability to speak Dutch or English. Since we did not use a translator during the interviews, this hindered the interviews. It was hard to reach understanding of some basic concepts, because they were not known and because synonyms were not understood. Owing to the high social desirability, it was not always possible to check whether a participant understood what was asked. Asking the training program staff was a way to ensure the answers' reliability. Another factor that hindered the data collection was cultural differences.

Another limitation may have been the operationalization of the lead user measures, which could have been better adapted to the social context. The way ahead of trend has been operationalized may be a less appropriate or applicable in the social domain. Linking this to the research on disruptive innovation (Christensen et al., 2006; Hart & Christensen, 2002) may help. The sample applied to measuring unmet needs in the form of a binary question; we did not capture this in the best possible way, and a more sophisticated construct should be developed. This may have affected the construct validity, i.e. how a measure behaves according to the literature, and the content validity, i.e. the extent to which a measure reflects the focal constructs' content (Gerring, 2012; Zeller et al., 1980). Partly related, when testing the assumptions via a hierarchical regression analysis, I found that in Model 2, the residuals were non-normally

divided; in this model, this assumption was not met. This can be due to the fact that the data were positively skewed, and must be considered in further research. Another limitation related to the analysis. In the FsQca paper, the sample size was split so as to avoid false positives, resulting in a > 0.5 threshold. This meant that we could not conduct a negated analysis, which may have provided interesting insights into the conditions that produce a certain mission type. Likewise, a limitation on the measurement level I used was that the Boolean function 'AND' to make the hybrid measure. A more sophisticated way to develop a scale to measure this construct is based on the literature and testing the scale's reliability and validity before using it (DeVellis, 2003). Another limitation may be the calibration threshold, which may have influenced the outcome. Another limitation relates to the constructs used. It has been found that it is hard to thoroughly measure innovation over multiple domains with multiple product or service types in large samples (Schweisfurth, Raasch, & Herstatt, 2019). This limitation was also encountered this dissertation's other studies.



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Summary

In this dissertation I examine *lead user-based social entrepreneurship* and focus specifically on whether personal unmet needs and the *lead user* characteristics influence starting a social business. *Lead users* are a specific type of users of products and services. They are ahead of a market trend and expect to benefit significantly from using the solutions that needs to be developed to overcome their unmet needs. Triggered by their unmet needs are *lead users-innovators* the first to develop an innovation to a functional state without the assistance of producers. I research whether this also happens in the social domain and results in social entrepreneurship. Social entrepreneurship comprises entrepreneurial activities that address societal pains and enhance social wealth by creating social value. In this research I examine whether *lead users-innovators* become social entrepreneurs and whether their characteristics influence this process. I also examine specifically the role of personal unmet needs on the prosocial orientation of (nascent) social entrepreneurs and how this affects the organizations' missions

Study 1 is the systematic literature review, where we examine the relationships between *lead user* innovation, *user entrepreneurship*, and social entrepreneurship so as to provide the theoretical basis for *lead user-based social entrepreneurship*. In doing so, we are the first to examine *lead user-based social entrepreneurship* as an independent phenomenon. Based on our systematic literature review, we find the distinguishing elements of the *lead user* innovation, *user entrepreneurship*, and social entrepreneurship literatures. Central in these literature streams are market and governmental failures, which cause (personal) unmet social needs on which users act. These failure types also influence the market characteristics in which innovations and businesses are developed. Innovation is a key component of both *lead users* and social entrepreneurs. Likewise, both *lead users-innovators* and social entrepreneurs are driven by non-financial motives for developing solutions to their unmet needs, while overcoming resource scarcity in the innovation process and in the commercialization process; also, both focus on community enhancement. Based on this, we developed a conceptual model that serves as the input for future research.

Study 2 is the first confrontation between the real-world and the conceptual model, in which we conduct an in-depth case study in which we study *lead user-based social entrepreneurship* by examining three illustrative cases. Central in

these cases is that the *lead users* developed and commercialized solutions that have create social value. We find that the *lead users'* solutions result in the development of novel approaches to fulfill unmet social needs. We demonstrate that user-innovators, owing to their specialized product knowledge, use informational asymmetries to their advantage to develop highly innovative solutions. This gives *lead users-innovators* advantageous positions in overcoming market and governmental failures, compared to established manufacturers, which did not value these solutions at all. Personal unmet needs created a *lead user* status and undergoing specific life events have put the entrepreneurs in a unique position to recognize the value their innovations can have on a larger scale.

In study 3, we examine the extent to which *lead user* characteristics, influence entrepreneurs to start a social business. The *lead user* characteristics Are which are personal unmet needs, being ahead of trend, experiencing high expected benefits from developing a solution, product-related knowledge and use experience. We use a sample of 133 (nascent) social entrepreneurs who enrolled in a social entrepreneurial training program in the Netherlands. Our approach is a mixed-method one that combines quantitative (survey) and qualitative (interviews) research. We conduct a multiple regression analysis to examine whether *lead user* characteristics influence starting a social business. Our results show that being ahead of trend influences starting a social business, while the having high expected benefits construct is a positive significant factor that contribute to starting a social business. Use experience was found to be almost significant, while personal unmet needs and product-related knowledge did not influence this model. Since the interview data clearly indicate the influence of having personal unmet needs on starting a social business, we developed a second model to more closely examine this. The same *lead user* characteristics significantly influenced this model.

The previous chapters already provided enough data to answer the first part of the research question. The rest of the dissertation therefore moves away from the *lead user* characteristics and focusses on the influence of personal unmet needs on starting a social business and the organizations' missions. In study 4, we examine in a sample of 36 nascent refugee entrepreneurs, we examine the influences of personal unmet needs and prior knowledge on (social) opportunity recognition processes. In addition, we examine how these entrepreneurs utilize their networks and the types of barriers they experience in doing so. We use a case study design with a mixed-method approach, combining in-depth

interviews (n = 7) and descriptive survey data (n = 36). We collected data from two entrepreneurial training programs in the Netherlands. We find that prior knowledge, personal unmet needs, and specific prosocial orientations influence how a (social) entrepreneurial opportunity is recognized and perceived. In contrast to what was expected, prior knowledge hinders these refugees in starting up their businesses. We also find substantial barriers that hinder refugees from acting on their business ideas, such as language barriers, lack of knowledge of the cultural, legal, and political context as well as a lack of knowledge about the institutional system. Refugees often have little knowledge about their network, which they should utilize in establishing their business. We find that many refugees feel pushed into entrepreneurship and may be considered as necessity-driven entrepreneurs.

In study 5, we investigate the interplay of conditions producing either a dominant social, economic, or hybrid mission type. We examine how the mission of 133 (nascent) social entrepreneurs is affected by the interplay of various conditions. The objective of this paper is to accumulate more knowledge about the configuration of conditions associated with a focus on social entrepreneurs' social, economic, or hybrid mission and to determine whether and how they interact. Our research addresses whether and how personal unmet needs, entrepreneurial experience, social innovation, and attention paid to the social and economic objectives are sufficient to produce entrepreneurial mission types for social enterprises. In doing so, we do not only examine the conditions that converge, but also distinguish between the ways they affect each mission type. We use a configurational approach and a fuzzy set qualitative comparative analysis (FsQca) to explore different combinations of conditions with a dominant focus on the organization's social, economic, or hybrid mission as an outcome.

The answer to the overarching research question that in some instances *lead users* become social entrepreneurs, however, it is rare that individuals score on both lead user characteristics: being ahead of a trend and having high expected benefits. More likely is that a user innovator becomes a social entrepreneur, because there are high expectations from the innovation related benefits but the user is not ahead of a trend. Market and governmental failure cause personal unmet needs which result in high expected benefits from obtaining a solution, which is characterizing for the social domain. Use experience, but not product-related knowledge is useful in this process too. These findings can be partially explained by the origins of the *lead user* constructs, which is in the industrial industry where more technical knowledge is required to innovate and may apply

less to the social domain. The user innovation process is partially the same in the social domain, although the function of the community differs. Market and governmental failures are at the basis of personal unmet needs in general, but specifically in the social domain. The influence of personal unmet needs has been irrefutably found to influence social entrepreneurs in starting a business and are linked to the prosocial orientations and also- albeit limited- influence the missions of the social enterprises.

Samenvatting

In dit promotieonderzoek bestudeer ik *lead user-based social entrepreneurship* (sociaal ondernemerschap door lead users) en focus ik specifiek op hoe persoonlijk onvervulde behoeften en de *lead user* karakteristieken het starten van een sociale onderneming beïnvloeden. *Lead users* zijn een specifiek soort gebruikers van producten of diensten. Zij lopen voor op een trend in de markt en verwachten grote voordelen van de oplossingen die nog ontwikkeld moeten worden om aan hun onvervulde behoeften te voldoen. Gedreven door hun persoonlijk onvervulde behoeften zijn *lead users* vaak de eersten die een functioneel prototype (innovatie), zonder de hulp van producenten ontwikkelen. Ik onderzoek of dit eveneens gebeurt in het sociale domein en of dit leidt tot sociaal ondernemerschap. Sociaal ondernemerschap omvat de ondernemersactiviteiten die gericht zijn op het verminderen van sociale pijn en die door sociale waarde te leveren het sociale kapitaal te kunnen vergroten. In dit proefschrift kijk ik specifiek of *lead user-innovators* sociaal ondernemers worden en of hun typerende karakteristieken van invloed zijn op dit proces. Eveneens kijk ik specifiek naar de rol van persoonlijk onvervulde behoeften op de pro-sociale oriëntatie van de (beginnende) sociaal ondernemers, alsmede naar de missie van de sociale organisatie.

Het eerste onderzoek betreft het systematische literatuuronderzoek waarin we naar de relatie kijken tussen lead user innovatie, ondernemerschap door gebruikers (*user entrepreneurship*) en sociaal ondernemerschap, om zo de theoretische basis te leveren voor het bestuderen van sociaal ondernemerschap door *lead users*. Wij zijn de eersten die sociaal ondernemerschap door *lead users* als onafhankelijk fenomeen bestuderen. Gebaseerd op het systematische literatuuronderzoek hebben we de kenmerkende elementen van *lead user innovatie*, *user entrepreneurship* en sociaal ondernemerschap gevonden. Centraal in de literatuur is dat markt- en overheidsfalen (persoonlijk) resulteren in onvervulde sociale behoeften die zorgen voor handelingsactie van de gebruiker. Deze soorten van falen beïnvloeden de karakteristieken van de markt waarin innovaties en bedrijven worden ontwikkeld. Innovatie is een kerncomponent voor producten en diensten ontwikkeld door *lead users* en ook voor sociaal ondernemerschap. Eveneens worden zowel de *lead users* als de sociaal ondernemers gedreven door niet geldelijke- of winstmotieven bij het ontwikkelen van oplossingen voor hun onvervulde behoeften. In het innovatie en commercialisatie proces gaan ze op creatieve wijze om met grondstoffen schaarste, waarbij deze processen eveneens gericht zijn op het verbeteren van

de gemeenschap (*community*). Op basis van de bevindingen uit de literatuur hebben we een conceptueel model ontwikkeld dat als input dient bij het vervolgonderzoek.

Het tweede onderzoek is de eerste confrontatie tussen de 'echte' wereld en het conceptuele model. In dit onderzoek verrichten wij een diepgaande casestudie waarbij sociaal ondernemerschap door *lead users* wordt onderzocht in drie casussen. In deze casussen staat centraal dat de *lead users* oplossingen hebben ontwikkeld en gecommmercialiseerd die sociale waarde creëren. De oplossingen van *lead users* resulteren in het ontwikkelen van vernieuwende manieren om sociale waarden te creëren. We tonen aan dat *user innovators*, vanwege hun gespecialiseerde productkennis, informatieve asymmetrie in hun voordeel gebruiken om zeer innovatieve oplossingen te ontwikkelen. Dit geeft *lead users*, in vergelijking tot gevestigde fabrikanten die deze oplossingen niet op waarde kunnen schatten, een gunstige positie om markt- en overheidsfalen boven te komen. Persoonlijk onvervulde behoeften creëren een *lead user* status en door het ondergaan van deze specifieke levenservaringen worden deze ondernemers in een unieke positie geplaatst om de waarde die hun oplossingen kunnen hebben op grotere schaal te herkennen.

In het derde onderzoek, onderzoeken we in welke mate de *lead user* karakteristieken het starten van een sociale onderneming beïnvloeden. De *lead user* karakteristieken zijn het hebben van persoonlijk onvervulde behoeften, het voorlopen op de trend, het verwachten van grote voordelen met betrekking tot de oplossing, product-gerelateerde kennis en gebruikservaring. We gebruiken hiervoor een steekproef van 133 (beginnende) ondernemers die zich hebben aangemeld voor een sociaal ondernemerschapstrainingsprogramma. We gebruiken een *mix-methods* benadering die interviews (kwalitatief) en regressieanalyse (kwantitatief) combineert. We voeren een meervoudige regressieanalyse uit om te onderzoeken of de *lead user* karakteristieken het starten van een sociale onderneming beïnvloeden. Onze resultaten laten zien dat het voorlopen op een trend het starten van een sociale onderneming beïnvloedt, en dat het hebben van hoge verwachte voordelen is hierbij significant positief. Gebruikservaring is bijna significant, terwijl persoonlijk onvervulde behoeften en product-gerelateerde kennis niet van invloed zijn in dit model. De interview data laten echter duidelijk zien dat het hebben van persoonlijk onvervulde behoeften erg van invloed is op het starten van een sociale onderneming, daarom hebben we een tweede model ontwikkeld waarin dit centraal staat. Uit de tweede test bleek dat dezelfde variabelen het model significant beïnvloeden.

De voorgaande hoofdstukken hebben voldoende data opgeleverd om het eerste gedeelte van de onderzoeksvraag te beantwoorden. De volgende hoofdstukken zullen daarom specifiek inzoomen op de rol van persoonlijk onvervulde behoeften en dan specifiek op hoe ze van invloed zijn op het starten van een sociale onderneming en op de missie van de organisatie.

In onderzoek 4 bestuderen we in een steekproef van 36 (beginnende) vluchtelingenondernemers hoe persoonlijk onvervulde behoeften en reeds opgedane kennis het (sociale) kansherkenningsproces beïnvloeden. We kijken eveneens hoe deze ondernemers hun netwerk aanwenden en welke barrières zijn hierin ervaren. We gebruiken een casestudie waar we een *mix-method* benadering gebruiken. We combineren diepte-interviews (n = 7) en beschrijvende statistiek gebaseerd op de ingevulde vragenlijst (n = 36). We hebben data verzameld bij twee ondernemerschapstrainingprogramma's in Nederland. We hebben gevonden dat reeds opgedane kennis, persoonlijk onvervulde behoeften en specifieke pro-sociale motivaties van invloed zijn op hoe (sociale) ondernemerschapskansen worden herkend en beleefd. In tegenstelling tot wat verwacht werd, belemmerde de reeds opgedane kennis de ondernemers in het starten van hun bedrijf. Wij hebben substantiële barrières gevonden die verhinderen dat vluchtelingen actie ondernemen om hun bedrijfsidee uit te werken. Deze barrières zijn onder andere: taal, gebrek aan culturele, juridische, politieke kennis evenals een gebrek aan kennis over het institutionele systeem. Vluchtelingen hebben vaak weinig kennis over hun netwerk en nog minder over hoe ze deze kunnen benutten om hun bedrijf te starten.

In het vijfde onderzoek hebben we gekeken hoe het samenspel van verschillende condities resulteert in een dominante sociale, economische of hybride missie. We hebben onderzocht hoe de missie van 133 (beginnende) sociaal ondernemers is beïnvloed door het samenspel van verschillende condities. Het doel van dit onderzoek is om kennis te vergaren over de configuraties van condities die geassocieerd zijn met de focus van de sociaal ondernemers op de sociale, economische en hybride missie, en vast te stellen hoe deze condities interacteren met elkaar. Ons onderzoek beantwoordt de vraag of en hoe persoonlijk onvervulde behoeften, ondernemerschapservaring, sociale innovatie en aandacht gegeven aan de sociale en economische doelstellingen toereikend zijn om een ondernemerschapsmis­sie van de sociale onderneming te creëren. Door dit te onderzoeken bestuderen we niet alleen welke condities convergeren, maar maken we ook onderscheid tussen de verschillende manieren hoe deze van

invloed zijn op de missie. We hebben een configurationele benadering gebruikt en passen *fuzzy set qualitative comparative analysis (FsQca)* toe om de verschillende combinaties van condities te verkennen die resulteren in een dominante focus op de sociale, economische en hybride missie.

Het antwoord op de overkoepelende onderzoeksvraag is dat in sommige gevallen *lead users* sociaal ondernemers worden, al is het wel zeldzaam dat individuen hoog scoren op de beide lead user karakteristieken: het voorlopen op een trend, alsmede op de hoge verwachte voordelen. Eerder komt het voor dat een *user innovator* sociaal ondernemer wordt omdat er hoge verwachte voordelen zijn, maar de lead user niet hoog scoort het voorlopen op een trend. Markt en overheidsfalen resulteren in persoonlijk onvervulde behoeften die leiden tot hoge verwachte voordelen van het vinden van een oplossing, wat bij uitstek karakteriserend is voor het sociale domein. Onze bevindingen kunnen deels worden verklaard door de oorsprong van het lead user construct, dat ontstond in de industriële industrie waar meer technische kennis nodig was om te innoveren, maar minder van toepassing is op het sociale domein. Het *user innovation* proces is deels hetzelfde in het sociale domein, al is de functie van de *community* anders. Markt en overheidsfalen staan over het algemeen aan de basis van persoonlijk onvervulde behoeften, en specifiek in het sociale domein. Het is onomstotelijk vastgesteld dat de invloed van persoonlijk onvervulde behoeften van invloed zijn op (beginnende) sociaal ondernemers bij het starten van hun bedrijf, op de pro-sociale oriëntatie van de ondernemer, en al zij het in minder mate, op de missie van de sociale onderneming.

About the author

Marlies Koers-Stuiver's research focuses on lead user-based social entrepreneurship, particularly the role of personal unmet needs, combining insights from the literatures on lead users, user innovation, user entrepreneurship, prosocial orientation, and social entrepreneurship to examine this phenomenon.

Marlies has presented at various conferences, including field-specific ones such as *Open & User Innovation (OUI)* and the *Annual Social Entrepreneurship Conference*, where she won the Best Paper Award. She has also presented at more general conferences, such as *High Tech Small Firm (HTSF)* (winning the Best Junior Paper Award) and *Research in Entrepreneurship and Small Business (RENT)*.

Marlies started at Carmel College (pre-vocational secondary education with an Economics profile), obtaining her degree there. She then obtained a degree at Deltion College (secondary vocational education as Administrative Legal Assistant with two differentiations, Business Services and Public Administration). She obtained her Bachelor degree in Business Administration from Saxion University of Applied Sciences. After her obtaining her pre-Master's at the University of Twente, she obtained her Master's in Science with a specialization in Innovation and Entrepreneurship (also at University of Twente).



Marlies currently serves as a post-doctoral researcher at the University of Groningen's Centre of Entrepreneurship (UGCE). Her areas of expertise include social entrepreneurship, personal unmet needs and prosocial orientation, lead user innovation, and refugee entrepreneurship. Much of her research has been at Move2Social and Start. She presented her work at various conferences and won the best paper award for her work twice.

In this dissertation, I have examined lead user-based social entrepreneurship, focusing on whether personal unmet needs and lead user characteristics influence starting a social business. I used personal unmet needs as a starting point to examine social entrepreneurship. For this reason, this dissertation has two parts, with part 1 focusing on lead user-based social entrepreneurship and part 2 on personal unmet needs. The overarching research questions of this dissertation were: Do lead user-innovators become social entrepreneurs; if so, how? And: What are personal unmet needs' roles in this?

The answer to the main research question is that in some instances, lead users become social entrepreneurs; however, it is rare for an individual to score high both on ahead of trend and high expected benefits. It is more likely that user-innovators becomes social entrepreneurs, because they have high expectations of the innovation-related benefits; however, they are not ahead of trend. This dissertation highlights the roles of personal unmet needs caused by exogenous events or life changes as a trigger for the user-based social entrepreneurial process. Further, I have emphasized the roles of market and governmental failures as a trigger of the user-based social entrepreneurial process.