
**Heart over mind – An empirical analysis of social
entrepreneurial intention formation on the basis of the theory
of planned behaviour.**

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LIST OF ABBREVIATIONS

ATB	Attitude towards behaviour
ATB-SE	Attitude towards becoming a social entrepreneur
BMW	Bayrische Motoren Werke
CSR	Corporate social responsibility
EIQ	Entrepreneurial Intention Questionnaire
EMES	European Research Network
FA	Factor analysis
GEM	Global Entrepreneurship Monitor
Greentech	Green technology
IESE	Instituto de Estudios Superiores de la Empresa
n/a	Not applicable
n.d.	No date
NPO	Non-profit-organisation
NYU	New York University
PBC	Perceived behavioural control
PBC-SE	Perceived behavioural control on becoming a social entrepreneur
Sig.	Level of significance
SN	Subjective norms
SN-SE	Subjective norms on becoming a social entrepreneur
SSIR	Stanford Social Innovation Review
Tol.	Tolerance
TPB	Theory of planned behaviour
TRA	Theory of reasoned action
UK	United Kingdom

USA United States of America

U.S. United States'

VIF Variance Inflation Factor

1. Introduction

"Many young people today feel frustrated because they cannot recognize any worthy challenge that excites them within the present capitalist system. When you have grown up with ready access to the consumer goods of the world, earning a lot of money isn't a particularly inspiring goal. Social Business can fill this void"

– (Muhammad Yunus, 2007 - Nobel Peace Prize Winner 2006)

In 2006, Muhammed Yunus, an Indian professor, banker and ideological father of microfinance, won the Nobel Peace Prize and the idea of social business and social entrepreneurship reverberated around the globe. Social entrepreneurship can broadly be understood as the pursuit of social goals using business. Microfinance is a good example to describe this further. While working with the poor in India, Yunus recognized that many desired to stand on their own feet, for example, by founding their own small business. To do this they needed capital, mostly small amounts, to buy a sewing machine or similar basic tools. Yet, banks were not willing to give the poor loans. They found the risk too high, as no income existed to date, and there was no security available. The bureaucratic processing of these credits also resulted in more costs than the microloans could cover. The Grameen Bank, founded by Yunus, found an innovative way to make microloans feasible. The bank developed an administration and collection process led by “lending circles”, formed by a number of borrowers in each community. Within this circle, borrowers monitor each other and check that each one of them is paying back their loans timely and correctly. Defaults make the community as a whole lose credibility. Like this, debtors are motivated to comply with their payment commitments, as they do not want to let down their social network. By involving the community, both the administrative work and a pay-back security are ensured. These lending circles lead to payback rates higher than those of many large-scale banks. In a social entrepreneurial sense, through this innovative action, social goals are achieved through business. On the one hand, the poor have access to the microloans they need to establish a source of regular income and look after themselves. On the other hand, like any other bank, the Grameen Bank collects interests, thereby earning revenue. Thus, it acts as a business and

in doing so helps a social cause. This is social entrepreneurship.¹ On this note, Bill Gates spoke at the 2008 World Economic Forum in Davos: “If we can spend the early decades of the twenty-first century finding approaches that meet the needs of the poor in ways that generate profits and recognition for business, we have found a sustainable way to reduce poverty in the world” (Bill Gates, as cited by Kinsley, 2009, p. 16).

The example of the Grameen Bank and numerous other early social entrepreneurial initiatives came from Bangladesh. But Western society has followed, as one can see when looking at Germany: in 2003, the association “startsocial” began supporting social initiatives in Germany. In 2006, Ashoka appointed seven social entrepreneurs as the first German Ashoka Fellows. In 2008, Chancellor Angela Merkel became honorary spokesperson for the competition “Social Entrepreneur des Jahres” of the Schwab Foundation. And since the most popular news website in Germany, Spiegel Online, displayed an article on social entrepreneurship on their opening page in June 2009 (Haerder, 2009), it is more than obvious: social entrepreneurship has become a relevant topic in business, society and politics. And it is growing further: while Seelos and Mair (2009) reported that in 2006, a Google search of the word “social entrepreneurship” resulted in over 1 million hits, five years later, in 2011, it results in over 2.5 million.²

Academic research has also picked up the pace and is busy looking into the subject: Currently, leading journals are publishing special issues on social entrepreneurship (e.g., in *Entrepreneurship Theory & Practice* in July 2010), new conferences are being launched (e.g., the “Social Entrepreneurs: Status Quo” in Berlin), the managers of tomorrow are taking social entrepreneurship classes at top business schools (e.g., Columbia Business School in New York, IESE in Barcelona; also see Tracey & Phillips, 2007, and www.aacsb.edu offers an overview of available courses), and universities are appointing professorships specifically to this research field (e.g., the Leuphana University Lueneburg). Nonetheless, it is widely agreed that the theoretical examination of this phenomenon is in its infancy – and researchers point out the small number of publications

¹ For introductory works see: Bornstein (2004), case studies and text book; Dees (1998), introduction to social entrepreneurship academia; Leadbeater (1997), the role of social entrepreneurs in society; and Nicholls (2006c), academic anthology.

² Search conducted on www.google.com, for “social entrepreneurship”, on June 3, 2011.

and accessible empirical studies on the topic (e.g., Certo & Miller, 2008; Desa, 2007; Mair & Marti, 2006; Peattie & Morley, 2008; Robinson, Mair, & Hockerts, 2009). This thesis addresses this need for thorough scientific work in the field. Specifically, it studies the formation of social entrepreneurial intentions. Hereby, it focuses on the question posed by Boddice: “From where does the desire to “make change” or to “do good” come from? Furthermore, why execute this desire as an entrepreneur?” (2009, p. 146). Along these lines, numerous researchers have called for work on social entrepreneurs and their reasons for action (e.g., Austin, 2006; Austin, Stevenson, & Wei-Skillern, 2006; Certo & Miller, 2008; Desa, 2007; Peattie & Morley, 2008). The motivation and relevance of the topic are illustrated in the following sections.

1.1. Motivation

Though the examples above have shown that social entrepreneurship has gained relevance in Germany, the level of social entrepreneurial activity is behind that of comparable countries. The John Hopkins Comparative Nonprofit Sector Project shows that Germany generally has a lower level of civil society sector work, which includes social entrepreneurial work. While in developed countries an average of 7.4% of the population engage with this sector, only 5.9% of the German population do (Salamon & Sokolowski, 2004).³ Specifically concerning social entrepreneurship, several authors mention that Germany lags behind other countries (e.g., Defourney & Nyssens, 2008), Bode, Evers and Schulz (2004) stressing that the label “social enterprise” is mostly unknown in this country. Leppert (2008) carried out an initial analysis of reasons for the low levels of social entrepreneurship in Germany. He names several forces which can be summarized into two core drivers. On the one hand, Germany has been a welfare state for many years, the government assuming a large part of the responsibility to care for and support all parts of society. Therefore, the level of volunteering is lower than in many other developed countries, where citizens’ dedication has always been necessary to cover the needs of some marginalized groups. On the other hand, the entrepreneurial climate is not very favourable in Germany, where unsuccessful founding attempts are considered

³ Data from 1995-2000

failures, stigmatizing people. In their study of the German social entrepreneurial sector, Achleitner, Heister and Stahl (2007) take a look further into the causes of low social entrepreneurship levels. While they also see the strong role of the government to date and the founding climate as institutional factors, similarly to Leppert, they deduce that these lead to different perceptions of social entrepreneurship within society, thus holding back its further development. First, there is a public perception of entitlement to high living standards which should be ensured by the state and the church, historically leading players in the field. This holds people back from feeling a social responsibility to take individual action to fight social problems. Second, entrepreneurship in general has a negative image. It is, therefore, perceived as less attractive to people. Furthermore, Achleitner, Heister and Stahl notice that on a local institutional level, there is a lack of cooperation between government and social entrepreneurs as they often compete for the same government support. While various authors see progress in social entrepreneurial advances, they underline that there is still work to be done to reduce the existing skepticism towards social entrepreneurship in Germany (Achleitner et al., 2007; Defourney & Nyssens, 2008). And as discussed, much of the problem exists in the *individual perceptions* of the situation and possible solutions.

The fact that social entrepreneurship levels are low is, actually, a “problem” for German society, as the country may be missing out on an innovative way to support its citizens. *Entrepreneurship*, in general, is good for society, leading to innovations, fostering employment and resulting in economic growth (e.g., Drucker, 1985; Kirchoff & Phillips, 1988; Schumpeter, 1936). In this sense, social entrepreneurship as a form of entrepreneurial activity can be considered beneficial to society as a whole. Additionally, social entrepreneurship targets *social* needs unmet by government or business. In the Germany of 2011, looking back at a welfare state which has offered assistance since the the late 19th century, the government has come to realize that it cannot financially maintain its ample support system. First steps have been taken to reduce unemployment benefits and welfare, and the extent of public healthcare is being reduced. Additionally, the role of the Christian church is diminishing, as fewer citizens pay church taxes and, hence, less money reaches the social causes they traditionally target. Overall, large gaps are appearing in the network of social needs which are not catered to by the state or

church. This situation in Germany makes innovative solutions for social problems equally more relevant and difficult.

Having seen that social entrepreneurship in Germany is desirable, yet that current levels are very low, leads to one pressing question: how can the levels of social entrepreneurship in Germany be increased? Krueger (2003) explains that entrepreneurship can only grow if the quality and quantity of entrepreneurs grow. And that these will only grow if entrepreneurial thinking increases. Hence, to move towards an answer to the question, rather than comparing Germany to other countries, this study focuses on understanding *how* social entrepreneurship is generated. This is studied within a German setting. As social entrepreneurship is such a young field, there are no established theories or models to base an international comparative study on. Offering itself as a first step, this study adopts a theory-based approach to social entrepreneurship and constructs a model which can later be applied within international comparisons.

So how can we move closer to understanding *how* social entrepreneurship is generated? As seen above, the perception of social entrepreneurship may be the key to augmenting its levels. Therefore, a look into what enables or hinders social entrepreneurship and what motivates people to become social entrepreneurs seems adequate. This leads to the more specific question: why do people become social entrepreneurs? In this sense Venkataraman's question "[..] What triggers the search for and exploitation of opportunities in some, but not in others?" (Venkataraman, 1997, p.123) is still of relevance, particularly in the new field of social entrepreneurship.

The motivation of this thesis is to move towards answering that question and, hereby, facilitate to increase levels of social entrepreneurship in Germany. This thesis will identify the core elements influencing people to become social entrepreneurs. Based on the findings, the respective elements influencing people could be fostered in societies. This should lead to an uptake in social entrepreneurial activity. For example, one option is to adapt educational programs towards the specific findings.

1.2. Research question and scope

To study the decision to become a social entrepreneur in the context of this thesis, a research question needs to be phrased. This should set the stage for the specific research this thesis will undertake. While it can build on previous work in the area, it must mark the unique field of knowledge the thesis will develop.

There is little knowledge, especially theory-driven, about what causes entrepreneurial action, even less so social entrepreneurial action (Krueger, Schulte, & Stamp, 2008). To predict and influence company founding, especially the phase prior to venture creation, is of relevance (Scheiner, 2009). As Krueger (2003) explained for entrepreneurship in general: “If we are interested in studying new ventures, then we need to understand the processes that lead up to their initiation” (p. 115). When analyzing the steps leading up to becoming an entrepreneur, academic research frequently applies the concept of intention formation.⁴ This approach is adapted to the field of social entrepreneurship for this thesis.

Hence, the research question of this thesis is:

How are the intentions to become a social entrepreneur formed?

As mentioned previously, the thesis attempts to develop findings within the German society. Hence, the work targets social entrepreneurship in developed, Western societies. Subsequently, empirical research is conducted solely in Germany. Nonetheless, findings can and should be tested for their applicability in developing countries.

While the findings can hopefully be used to adapt educational programs, as suggested above, it must be added that the target of the thesis is not to develop an ideal educational program for social entrepreneurship or social entrepreneurs. Rather, it takes a more holistic approach, attempting to understand social entrepreneurial intention formation as a whole. Nonetheless, some findings can certainly be applied to social entrepreneurial education.

⁴ This is further specified in Chapter 2.2.

1.3. Theoretical and practical relevance of the research question

As mentioned above, social entrepreneurship is “booming” in practice and academia. This thesis aims to support both areas.

Knowing why people become social entrepreneurs enables a focus on fostering those specific factors which will lead to a rise in social entrepreneurship. In this sense, and in line with the general motivation of the thesis, on a **practical** level, findings of this thesis could be applied to foster social entrepreneurial activity in Germany. After reviewing the applicability of the findings, other countries, both developed and developing, could use specific insights to improve their levels of social entrepreneurship. Additionally, the thesis will aim at not only identifying but also at prioritizing the different factors.

On a **theoretical** level, numerous advances can be made:

- First, this thesis is an **extensive study of social entrepreneurial intention formation**. To date, social entrepreneurial intention formation has not been studied in detail. While Mair and Noboa (2006) have developed an initial model on social entrepreneurial intention formation, it has not been validated empirically. The existing empirical studies on the topic do not follow a theory-based approach. This is further analysed in Chapter 2.2.5. This thesis will offer significant insights into the underlying processes.
- Second, in general, this thesis adds to the few **theory-driven approaches to social entrepreneurship**. Additionally, the theoretical findings are underpinned using empirical data, another rare finding in current social entrepreneurship research. More specifically, this thesis conducts **one of the first quantitative analyses in social entrepreneurship**. The current state of social entrepreneurship research is further portrayed in Chapter 2.1.2.2.
- Third, this thesis will further develop the concept of **social entrepreneurship as a form of entrepreneurship**. This is further discussed in Chapter 2.1.3. In doing so, it offers social entrepreneurship an academic ‘home’ from which to adopt previous insights, yet also a place to which it can pass on new findings. To support this, theories and models from entrepreneurship research are applied and

extended, and findings can be used to move forward entrepreneurship research as a whole.

- Fourth, and following up on the previous point, to study social entrepreneurial intentions, this thesis **employs the theory of planned behaviour** from the field of social psychology. This theoretical framework is applied in entrepreneurship research, and numerous other fields of study, and is the most established and successful framework for analysing behavioural intentions. It is further presented in Chapter 2.2.4. This thesis can confirm the applicability of the theory of planned behaviour in the field of social entrepreneurship.
- Fifth, and finally, the subsequent **model of social entrepreneurial intention formation can offer the basis for future** related or explicit studies for researchers to come. It is developed in Chapter 3, and validated in Chapter 4 and Chapter 5.

Figure 1 shows the five goals in summary.

	Goal
I.	Extensive insight into social entrepreneurial intention formation
II.	Theory-driven, empirical study on social entrepreneurship
III.	Allocation of social entrepreneurship as a form of entrepreneurship
IV.	Application of the theory of planned behaviour in the field of social entrepreneurship
V.	Development of model of social entrepreneurial intention formation as a basis for future research

Figure 1: Theoretical goals of this thesis

1.4. Structure of the thesis

The structure of the thesis is as follows: **Chapter 2** offers a theoretical introduction to the topic. First, social entrepreneurship is presented as a phenomenon, positioned as a form of entrepreneurship, and subsequently defined. Second, previous findings on entrepreneurial intentions are presented. The applicability of the concept of intentions for the study of entrepreneurship is discussed. Additionally, the historical development of findings is displayed and intentional models are introduced. Third and finally, the theory of planned behaviour is chosen as a theoretical base for the development of the model of social entrepreneurial intention formation. Both the agility of the theory as well as its prior success in the field of entrepreneurial intention studies are portrayed.

In **Chapter 3**, the model of social entrepreneurial intention formation is developed. Besides adapting the classical model of the theory of planned behaviour to the specific field of this study, it is extended by the constructs of social entrepreneurial personality, social entrepreneurial human capital and social entrepreneurial social capital. In all cases, the motivation behind including the construct is explained and the relevance in entrepreneurship and social entrepreneurship research to date is presented. Hypotheses concerning the causal relationships between all elements of the model are phrased. Additionally, control variables are chosen for the study.

Chapter 4 presents the research method and statistical results of the empirical study. First, the research process is described. Second, the measures for each element of the model of social entrepreneurial intention formation are developed. Third, the resulting data set is briefly presented. And fourth and finally, the quantitative results of the multiple linear regressions testing the hypotheses are shown.

These quantitative results are discussed in **Chapter 5**. Besides studying the applicability of the general theory of planned behaviour in the field of social entrepreneurial intention formation, the effect of each extension of the classical model (social entrepreneurial personality, social entrepreneurial human capital, and social entrepreneurial social capital) on social entrepreneurial intention formation is illustrated. Additionally, specific findings on gender differences are discussed.

Finally, **Chapter 6** summarizes the findings of the thesis. Recommendations are made based on the findings of the study, also for the realm of social entrepreneurial education.

Keeping in mind the limitations of the study, suggestions are also made for future research in the field.

Figure 2 graphically outlines the structure of the thesis.

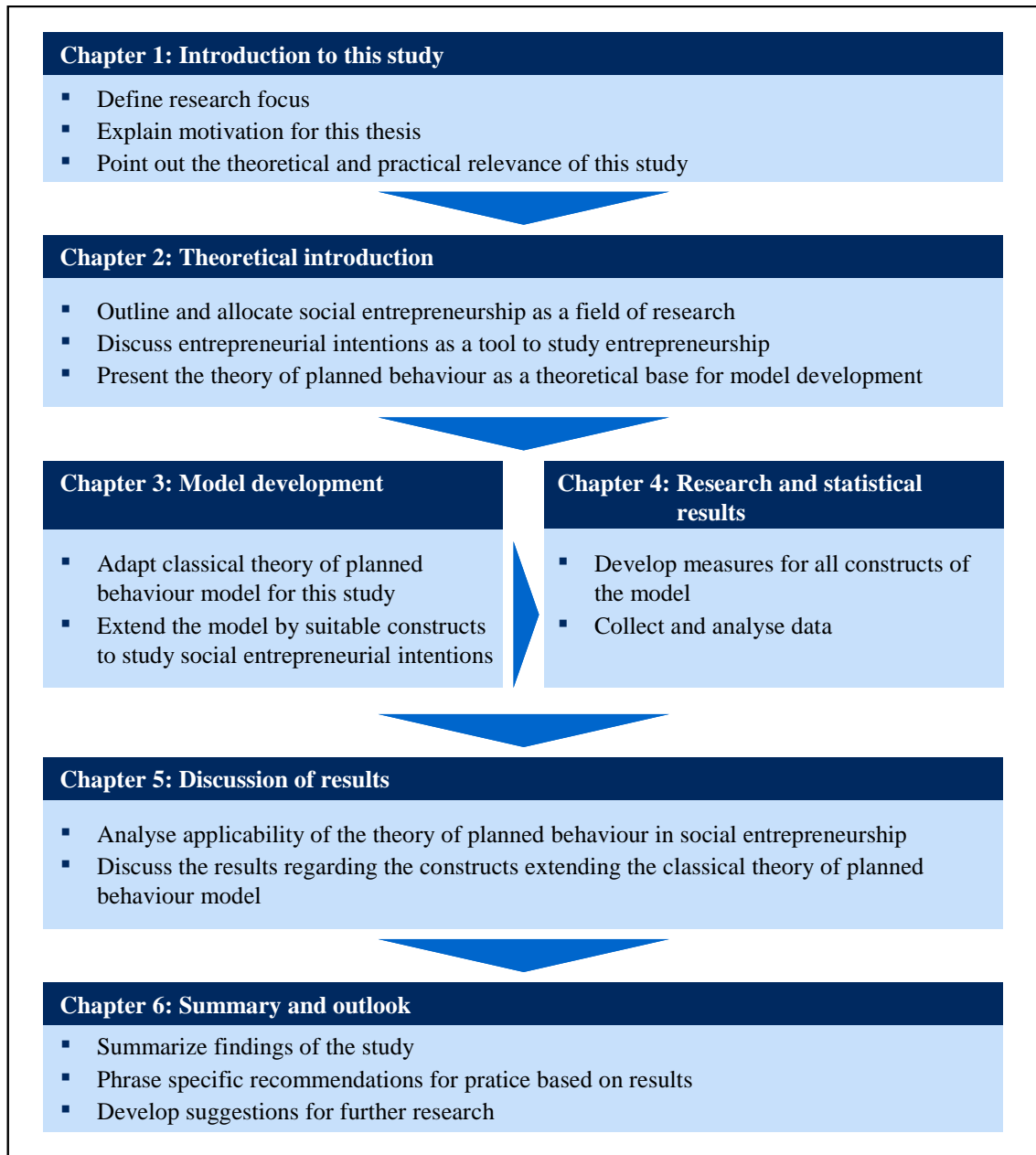


Figure 2: Structure of the thesis - chapters and objectives

2. Theoretical basis and framework

To ensure a thorough scientific approach, the study of the formation of social entrepreneurial intentions is based on existing theories. In a first step, current knowledge on the area of social entrepreneurship is assessed to develop an understanding of social entrepreneurship for this study. Based on current findings and theoretical lines of argument, social entrepreneurship is positioned as a form of entrepreneurship. Building on this perspective, the field of entrepreneurship studies offers robust findings on intention formation. To learn from these, in a second step, the concept of entrepreneurial intentions and their role in entrepreneurship research are outlined. Here, the theory of planned behaviour is suggested as a suitable model for the study of social entrepreneurial intention formation. Finally, the slim findings on social entrepreneurial intentions to date are reviewed.

2.1. Social entrepreneurship

This introduction to social entrepreneurship has several purposes:

- **First**, it outlines social entrepreneurship's practical sphere of action. This helps understand the role social entrepreneurship can or should play in societies.
- **Second**, it portrays the current state of social entrepreneurship – both in the practical and the academic field. This outlines how the field has progressed and what the current challenges are, both practically and theoretically.
- **Third**, it describes how social entrepreneurship can be understood in the realm of entrepreneurship research. This puts it in the existing theoretical framework of entrepreneurship, offering an array of insights and analysis tools.
- **And fourth** and finally, it offers a definition analysis of the term “social entrepreneurship” – a much discussed aspect within the field. This shows how various definitions of the term have come about and pinpoints where the differences in interpretation lie. An understanding of the term is also developed for this thesis.

While social entrepreneurship is the term most commonly used in the field of study, it relates to the terms of social entrepreneur – the person engaging in social entrepreneurship –, and social enterprise – the venture run by the social entrepreneur. As these terms refer to the same phenomenon, they are all applied in the course of this theoretical excursion. They all relate to the same thing, simply on different levels of analysis (Hockerts, 2006; Peredo & McLean, 2006).

2.1.1. The function of social entrepreneurship in market and society

Social entrepreneurship means acting within markets to help a societal cause. Such societal causes appear when markets fail: either businesses cannot fulfil existing needs, because they cannot be catered to profitably, or governments cannot fulfil them, as they have low priority in terms of public support (Mair & Marti, 2009; Mair, Marti, & Ganly, 2007; Weerawardena, McDonald, & Mort, 2010). These institutional gaps appear more frequently and to a larger extent in today's societies, as they are embedded in the vast and complex, dynamic structures that are the global markets (Durieux & Stebbins, 2010; Faltin, 2008). The millennium goals are a good example of the large problems the world battles today, e.g., attempting to fight poverty globally (Sachs, 2005). Traditionally, NPOs have acted within these institutional voids left by businesses and government (Sud, VanSandt, & Baugous, 2009). Yet nowadays, the situation for NPOs has become more challenging (Michael Bull, 2008). On the one hand, competition has increased in this field, with numerous NPOs battling over scarce financial resources (Dees, 1996). On the other hand, the call of money has also reached philanthropy, and investors or donors are expecting more for the funds they put into a social cause (Sud et al., 2009). Frances (2008) describes the situation of NPOs as a fake safety haven which is comfortable and complacent, yet doesn't manage to create thought-changing impact. Hence, traditional NPOs often cannot live up to expectations, and new sustainable and scalable solutions are needed to successfully fill the existing institutional gaps (Dees, 1996).

This is where social entrepreneurship jumps in. Social enterprises attempt to target unfulfilled social needs with market-based approaches, aiming for sustainable solutions. They do so by creating additional value. By moving resources to areas of more efficient use, they create value which can be translated into revenue (Mair & Marti, 2006). For

example, the Spanish dairy company, La Fageda, employs mentally challenged people to produce their high quality yoghurts, offering them the employment this group of people is often denied. In an economic sense, the employees are placed in a situation of higher productivity, involving them in economic value creation. Social enterprises also internalize externalities which the market normally ignores, further increasing the output of social value (Auerswald, 2009; Frances, 2008). On top of this, some additional value is created by offering consumers socially aware products, for which they are prepared to pay a price above market value (Hibbert, Hogg, & Quinn, 2005). For example, consumers are willing to pay more for Fair Trade chocolate or socially oriented print media like the Big Issue in the UK. These different additional value sources lead to increased sustainability of the venture, making it more attractive for donors and/or investors. Hence, the multiple forms of social value creation are a core function of social enterprises (Auerswald, 2009; Certo & Miller, 2008). By doing this, social entrepreneurship fills gaps left unattended by other institutions.

Some practitioners and researchers see even further potential in social entrepreneurship. On the one hand, social entrepreneurship can lead to self-inflicted virtuous cycles. The social entrepreneurs themselves can be expected to steadily create additional value by driving their enterprise further and further (Perrini, 2006). This is based on the idea that an enterprise that successfully creates value is attractive to an entrepreneur who will, therefore, continue to lead the enterprise, which again leads to additional value which further motivates the entrepreneur, and so on – establishing a fruitful virtuous cycle, leading to additional value for both the social entrepreneur and the society. On the other hand, social entrepreneurship can cause a systematic change in society as a whole, beyond the social enterprise. Bill Drayton is the thought leader in this area (e.g., Drayton, 2006). He postulates the vision of “everyone a change maker” (Drayton, 2006, p. 84), believing that every single person can engage in social entrepreneurship to help create change. There is also hope that the social entrepreneurs’ compassion and motivation will pass on to other citizens and lead to a higher level of social oriented behaviour overall (Durieux & Stebbins, 2010).

In summary, by filling institutional gaps, social entrepreneurs create additional value, leading to a self-sustaining business model, and motivating both the entrepreneur and

society as a whole to further create social value. This is the theoretical function of social entrepreneurship.

2.1.2. History of social entrepreneurship

To understand the role social entrepreneurship plays today, its practical and academic history is now briefly reviewed.

2.1.2.1. Social entrepreneurship in practice

Some researchers argue that social entrepreneurship is a phenomenon which is anything but new (Boddice, 2009). For example, Bornstein and Davis (2010) state: “Social entrepreneurs have always existed. But in the past they were called visionaries, humanitarians, philanthropists, reformers, saints, or simply great leaders” (p. 2). Nonetheless, their work today is different than before, as it has achieved a potentially global reach (Nicholls, 2006a). It is worth looking into how this modern-day worldwide movement came about.

In practice, the origins of social entrepreneurship can be found in the establishment of the private sector. Coming from a situation of oppression by feudal lords, churches or slavery, the Enlightenment movement of the 17th century paved the ground for the creation of the private sector, and hence the introduction of the enterprise (Bornstein & Davis, 2010). Over the next decades, laws and practices were introduced which protected individual’s ideas and property and led to a thriving private sector. As these laws were first established in the USA, its entrepreneurial sector was the first to flourish. Together with the progression of the business sector, the state regressed in its responsibilities, leaving institutional gaps and welcoming NPOs and philanthropists into the field (Shaw & Carter, 2007). In Europe, the UK followed suit and was amongst the pioneers to introduce entrepreneurship into the social realm, as in the case of the Victorian private hospitals (Shaw & Carter, 2007). As explained in Chapter 1.1., the German NPO sector lagged behind, as a traditional social welfare state, where the government aimed to fill the majority of existing institutional voids. For many years, the coexistence of government, business and NPOs covered a large amount of the occurring social needs. Yet, especially

in weakly developed countries, gaps still gaped and inequalities remained. It was in one of these regions, in Bangladesh, where social entrepreneurship as it is understood today came into existence (Bornstein & Davis, 2010). One pioneer was Mohammed Yunus, the banker and professor, who developed the idea of giving micro-loans to the poor to aid them in establishing their own businesses and helping themselves out of poverty (for more information on his work see Grieve, 2008; Yunus, 2006, 2007). His ideal that serving the poor could be done in a sustainable manner – the Grameen Bank which he founded earns revenues in the form of interest rates paid by the borrowers – gave a new twist to the idea of “non-profit” work. While this and further individual ideas moved forward, the establishment of the term “social entrepreneurship” helped the topic gain global appeal. Here, the organisation Ashoka, founded by Bill Drayton, a former McKinsey management consultant, played its part (Defourney & Nyssens, 2008). Having travelled India, watching new social enterprises appear, Drayton recognized the value of such sustainable endeavours (Bornstein & Davis, 2010). Subsequently, he founded the first support institution specifically for social entrepreneurs, Ashoka. This organisation aims at identifying social entrepreneurs early on and offering them a wide range of assistance, e.g., business consulting, to pursue their goal. With Ashoka’s global set-up and their public relations work, the term “social entrepreneur” spread worldwide. Alongside the pioneers and initial support institutions, global developments further aided the creation of social enterprises. Bornstein and Davis (2010) name numerous supporting factors, largely the falls of totalitarian regimes due to a higher level of education and knowledge in societies caused by liberation movements, such as striving for independence for women, and international media such as the Internet which helps people worldwide understand the options they have as an individual.

Established on a worldwide level, social entrepreneurship has run through several developmental steps. Various additional support institutions have established themselves, the Schwab Foundation joining Ashoka on a global level, and the Bertelsmann Stiftung, Sylter Runde and BMW Stiftung Herbert Quandt as German examples (Faltin, 2008; Lyon & Ramsden, 2006; Perrini, 2006). Within Europe, Italian cooperatives in the 1980s marked the beginning of wide-scale social entrepreneurship (Defourney & Nyssens, 2008). Since the 2000s, the UK has established itself as the strongest social entrepreneurial region in Europe (Defourney & Nyssens, 2008; Heckl & Pecher, 2007;

Leadbeater, 1997; Shaw & Carter, 2007). The Global Entrepreneurship Monitor reports levels as high as 6.6% of the UK population participating in social enterprises (Harding, 2004; Minniti, Allen, & Langowitz, 2005). Bornstein and Davis (2010) even believe that the preoccupation with social entrepreneurship has already reached its third generation. In their view, it started with social entrepreneurship 1.0 which identified social entrepreneurs, described their function and developed support systems, followed by social entrepreneurship 2.0 that focused on the organisational excellence of social enterprises, to social entrepreneurship 3.0 today that looks at the change-making potential of all people. While this may be true for the practical realm, the academic realm is lagging behind as the subsequent examination of the academic history of social entrepreneurship shows.

2.1.2.2. Social entrepreneurship in academia

The idea of social value creation through business has its academic roots as early as the 1970s. In 1973, Davis wrote an article on the different opinions towards business assuming social responsibilities (K. Davis, 1973). On the one hand, researchers such as Milton Friedman (1962) feared that social responsibility in business would disrupt the very basis of the capitalistic market: "few trends could so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible" (cited by Davis, 1973, p. 312). On the other hand, researchers such as Paul A. Samuelson saw it as a core responsibility of business to create social value. Researchers have moved a long way since then, with activities such as CSR having long taken their place in the business realm. Nonetheless, the idea of socially oriented entrepreneurship appeared in academia over a decade later, in 1986, when Dennis R. Young compared "nonprofit entrepreneurs" to managers, focusing on their innovative actions (Young, 1986, as reported by Light, 2005, p. 2). At the same time, academia was still closed towards the subject of social entrepreneurship: simultaneously, Dees is said to have suggested a social entrepreneurship course to Harvard Business School which he was "cautioned not to do" (Eakin, 2003). The actual research field of social entrepreneurship subsequently started its growth in the late nineties (and by then Dees was also allowed to hold his course).

Schools introduced their first social entrepreneurship courses and research networks, such as the EMES European Research Network, engaged in the topic (Defourney & Nyssens, 2008). This growth can be seen by analysing levels of published work on the topic of social entrepreneurship. For example, when looking for “social entrepreneur”, “social entrepreneurship” or “social enterprise” within titles in Business Source Complete in November of 2009,⁵ a total of 200 articles was found, of which 75% were published in the year 2005 or later and none of which dated back later than the nineties,⁶ as is shown in Figure 3.

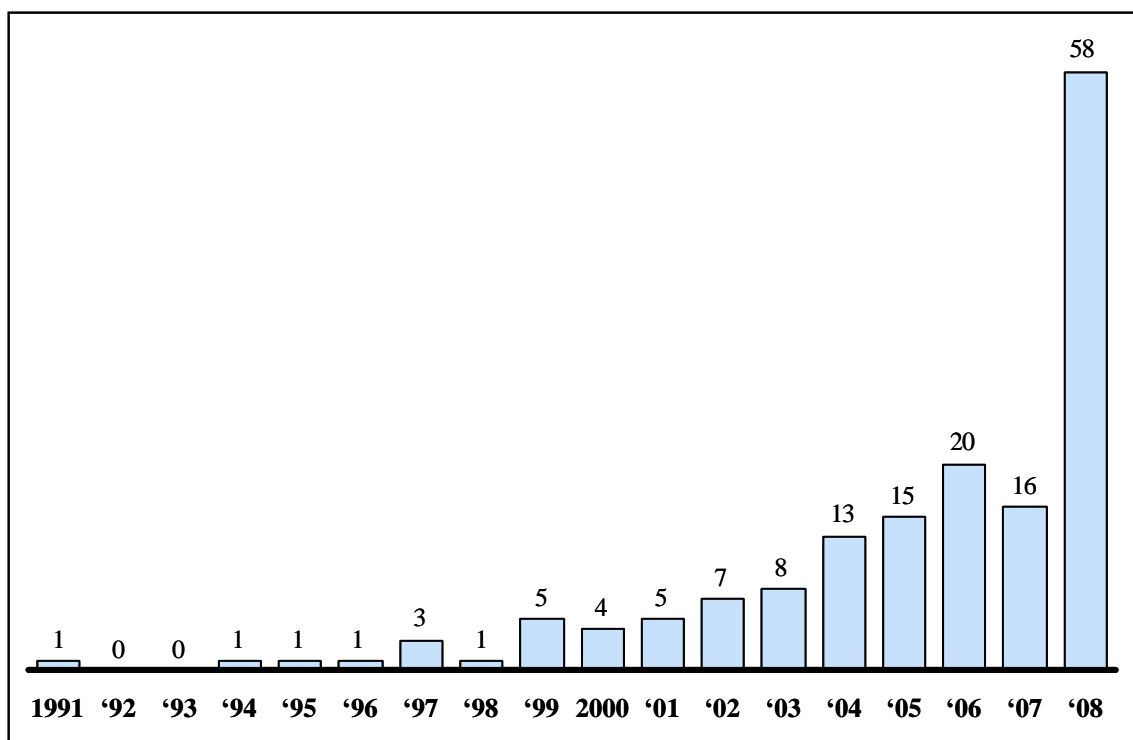


Figure 3: Number of articles with titles including “social enterprise”, “social entrepreneurship” or “social entrepreneur” per year in Business Source Complete from 1991 to 2008 (requested November 9, 2009)

⁵ Search conducted on November 9, 2009 in Business Source Complete, searching for TITLE “social enterprise” or “social entrepreneur*”. Business Source Complete is a literature data base including almost 5,000 journals and magazines, for a complete list see <http://www.ebscohost.com/titleLists/bth-journals.html>.

⁶ Except one outlier from 1975 which included “social enterprise” in the title.

Today, academia is obviously embracing the topic and research on social entrepreneurship is growing fast (Perrini, 2006). For example, there have even been special issues of journals on the topic, such as the International Journal of Entrepreneurial Behaviour & Research on Social Entrepreneurship in 2008. Researchers are positioning themselves as thought leaders of the field and taking ownership in moving it forwards, such as Alex Nicholls (University of Oxford: Saïd Business School), Gregory Dees (Duke University: The Fuqua School of Business), Johanna Mair (University of Navarra: IESE Business School) or Paul C. Light (NYU: Robert F. Wagner Graduate School of Public Service) to name but a few. Besides the broad phenomena, elements of social entrepreneurship are also now being studied in detail. Some of the ‘hot topics’ are:

- **Opportunity recognition in social entrepreneurship** (Corner & Ho, 2010; Guclu, Dees, & Anderson, 2002; Hockerts, 2006; Monllor & Attaran, 2008; Murphy & Coombes, 2009; J. A. Robinson, 2006)
- **Success factors of social enterprises** (Alvord, Brown, & Letts, 2004; Mair & Schoen, 2005; Sharir & Lerner, 2006; Sharir, Lerner, & Yitshaki, 2009)
- **Collaboration and partnerships in social entrepreneurship** (Levine & Hamaoui, 2004; Sud et al., 2009)
- **Growth and expansion of social enterprises** (VanSandt, Sud, & Marmé, 2009)
- **Output and performance measurement in social entrepreneurship** (Haugh, 2006; Jacobs, 2006; Neck, Brush, & Allen, 2009; Santos, 2009)

Additionally, researchers are assisting in the development of practitioner guides to help social entrepreneurs further improve their businesses (Brinckerhoff, 2000; Dees, Emerson, & Economy, 2001, 2002; Durieux & Stebbins, 2010).

Yet, caution is also called for: the field of research is still in its infancy (Light, 2011). Overall, the literature search above shows only 200 papers on the topic in almost 20 years. Other previous literature reviews show similar results: in the year 2000, Johnson included only 24 papers in her literature review on social entrepreneurship (S. Johnson, 2000). A few years later, Mair, Robinson and Hockerts’ (2006) review finds only a “handful” of papers and books dealing with social entrepreneurship published between 1990 and 2004. And Desa’s 2007 search finds no articles on social entrepreneurship in

leading management journals (Desa, 2007). Hence, while traction is currently high, the field should be treated as the young area that it is and take its time to develop sound theories to build upon (Harding, 2004). In this sense, and moving back to Bornstein and Davis' vision of social entrepreneurship 3.0, the field of social entrepreneurship research has not even fully grasped social entrepreneurship 1.0, the comprehension of what social entrepreneurship is and how it functions. There is currently no established theory (as criticized by Harding, 2004; Light, 2011; Weerawardena & Mort, 2006) or presence of large scale quantitative studies (as criticized by Hockerts, 2006; Light, 2011). A large part of the field is based on anecdotal cases and is, therefore, phenomenon-driven (as criticized by Mair & Marti, 2006; Nicholls & Cho, 2006).⁷ The research efforts are subsequently very diverse, lacking a clear structure or line of thought. This can be shown taking an exemplary look at the current amount of typologies within social entrepreneurship. An overview of selected typologies is shown in Table 1.

⁷ For a selection of case studies, see Alvord, Brown, and Letts (2004), Bhawe, Jain, and Gupta (2007), Bornstein (2004), Corner and Ho (2010), Elkington and Hartigan (2008), Faltin (2009), Mair and Marti (2009), Spear (2006), J. Thompson, Alvy, and Lees (2000), J. Thompson and Dorothy (2006), Waddock and Post (1991).

Source	Criteria for typology	Number of types identified	Resulting types
Roper and Cheney (2005)	institutional location	3	<ul style="list-style-type: none"> • Social business • NPO • Government activity
Boschee (1995)	business model	2	<ul style="list-style-type: none"> • Affirmative business (create jobs and ownership for underprivileged groups, e.g., bakeries run by the homeless) • Direct-services business (catering to needs of underprivileged groups, e.g., running shelters for women)
Fowler (2000)	business model	2	<ul style="list-style-type: none"> • Integrated social entrepreneurship (surplus-generating institutions simultaneously creating social benefits) • Complementary social entrepreneurship (surpluses are simply a source of cross-subsidy)
Pomerantz (2003)	financial resources	2	<ul style="list-style-type: none"> • Social enterprises which live on earned income and generate profit • Social enterprises which mix earned income with grants and donations
Elkington and Hartigan (2008); Hartigan (2006)	financial resources	3	<ul style="list-style-type: none"> • “Social Business Venture” • “Hybrid Nonprofit Ventures” • “Leveraged Nonprofit Ventures”
Boschee and McClurg (2003)	legal status	2	<ul style="list-style-type: none"> • NPO moving into revenue generation • Pure business venture to begin with

Table 1: Selection of different typologies of social entrepreneurship

Alter (2006, 2007), finally, takes the differentiation to the utmost level, portraying more than nine types of social enterprises, differing in their mission and the integration of business. This short look into existing typologies in social entrepreneurship offers a good insight into the diverse levels researchers are discussing, the different borders they see social entrepreneurship as having, and overall the lack of knowledge exchange or thorough theoretical discussion.

This confusion and the challenges facing the field of social entrepreneurship are largely based on two problems which are certainly interrelated: social entrepreneurship has yet to find an academic field to call home and there are numerous diverse definitions of social entrepreneurship on the table, making comparability difficult. While this thesis cannot

and will not aim to solve these problems, initial clarification of the two aspects for the course of this study must be done to understand and analyse social entrepreneurship in an effective manner.

2.1.3. The academic framework: Social entrepreneurship as a form of entrepreneurship

Currently, social entrepreneurship is spread across academic fields and departments, even within single universities, which causes part of the inconsistency in research (Light, 2011). An anchorage is important to focus future research and enable enhanced knowledge exchange. This thesis locates social entrepreneurship in the field of entrepreneurship. While some researchers call for an independent field of study for social entrepreneurship (Mair & Marti, 2006; Nicholls, 2006a), others even go so far as to say that the field is in agreement that the key to understanding social entrepreneurship lies in business entrepreneurship research (Chell, 2007; Perrini & Vurro, 2006). In fact, social entrepreneurship researchers are frequently encouraged to move their field forward by adopting insights from related areas (e.g., Bornstein & Davis, 2010; Light, 2009). Social entrepreneurs already do this, applying knowledge and tools from business entrepreneurship when leading their ventures (Durieux & Stebbins, 2010). Hence, this thesis agrees with researchers such as Steyaert (2006) and Certo and Miller (2008) who consider social entrepreneurship as a subdiscipline of entrepreneurship, and places this study in the field of entrepreneurship research.

The integration of social entrepreneurship into the field of entrepreneurship is primarily based on the idea of value creation through innovative business activity. As explained previously, the central goal of social entrepreneurship is the creation of social value. The goal of business entrepreneurship is economic value, mostly profit.⁸ Hence, if the product of entrepreneurship itself – whether social entrepreneurship or business entrepreneurship – can be considered value – whether social value or economic value –, achieved by offering innovative solutions to existing demands, then social and business

⁸ Also for business, researchers have recently discovered that monetary goals are not the singular or primary reasons for founding a company (Boisson, Castagnos, & Deschamps, 2006; Bönke & Jarosch, 2010). Nonetheless, the definition of business entrepreneurship states profit as the *raison d'être* of an enterprise (e.g., Casson, 2003; Compans & McMullen, 2007; Kirzner, 1979; Schumpeter, 1936).

entrepreneurship can be joined under one theoretical umbrella of entrepreneurship (Krueger & Kickul, 2006; Santos, 2009; Zahra, Gedajlovic, Neubaum, & Shulman, 2009). And as numerous researchers have correctly pointed out: All business is social in the sense that it creates value (Eakin, 2003; Edwards, 2010; Neck et al., 2009; Phills Jr., Deiglmeier, & Miller, 2008; Shane & Venkataraman, 2000). Innovation, which describes the process through which entrepreneurs create this value, is at the heart of both business and social entrepreneurship (Certo & Miller, 2008; Dees, 2003; Leppert, 2008; Perrini, 2006), though their innovations have different effects. Phills Jr., Deiglmeier and Miller (2008) succinctly describe this: “The automobile promoted feelings of freedom and independence [...]. Pharmaceuticals save lives. [...] Yet that does not make these products social innovations. [...] an innovation is truly social only if the balance is tilted toward social value [...] rather than private value [...]” (p. 39). So, in a first step, social entrepreneurship can be understood as entrepreneurship, yet with a social twist. This perspective is adopted by various pieces of work on social entrepreneurship, which enter the debate on the subject by defining the terms of “social” and “entrepreneurship” separately only later to marry the two (Leppert, 2008; R. L. Martin & Osberg, 2007; Tan, Williams, & Tan, 2003; Zahra et al., 2009). Concerning the former, this thesis understands an action to be social if it aims at fighting a social problem, perceived as such by the general society.⁹ Concerning the latter, developing an understanding is more complex. Fortunately, the established field of business entrepreneurship offers a wide range of tested theories and insights into this topic. To move towards an understanding of social entrepreneurship as a type of entrepreneurship, the core theories of entrepreneurship are briefly introduced.¹⁰

2.1.3.1. Introduction to theories on entrepreneurship

Two seminal views and some of the earliest thoughts on business entrepreneurship come from Joseph A. Schumpeter and Israel M. Kirzner. In the first half of the 20th century they paved the way for entrepreneurship as a field of study by introducing the

⁹ For further elaboration on the term “social” in this context, see Cho (2006) and Nicholls and Cho (2006). The course taken here is in line with Leppert (2008).

¹⁰ Entrepreneurship studies may often refer to what this thesis understands to be business entrepreneurship, yet as they are not clear in their separation, their wording of “entrepreneurship” is used.

entrepreneur as the driving force of an economy. While they both show the central role of the entrepreneur in the capitalist market, their perspectives regarding the nexus of the entrepreneur, the market, and the entrepreneurial opportunity differ greatly.

Schumpeter believes that markets are in constant evolution due to entrepreneurs, who act as a *disequilibrating* force (Schumpeter, 1950). The “circular flow” (Schumpeter, 1936, p. 129) of a market (in perfect competition) is interrupted when an entrepreneur carries out a “new combination” (Schumpeter, 1936, p. 132) to gain an entrepreneurial profit. In this sense, the entrepreneurs themselves *make* the opportunity. This causes a disequilibrium in the market. Due to the alluring profit, imitators follow and the market moves back towards the equilibrating state. Schumpeter also states that overcoming the challenges facing an entrepreneur “requires aptitudes that are present in only a small fraction of the population” (Schumpeter, 1950, p. 134), creating the myth of the superhero-like entrepreneur which guided vast parts of the research in the field in the following decades.

Kirzner, on the other hand, sees the entrepreneur as an *equilibrating* force, moving the market towards a theoretical steady state (Kirzner, 1979, 1997). He argues that this state is never reached: either external shocks or mistakes by entrepreneurs result in the constant disequilibrium of the market and, hence, the constant existence of opportunities (Kirzner, 1997). In this sense, the entrepreneur *finds* the opportunity. Entrepreneurs possess an ‘alertness’ which enables them to see these opportunities so far overlooked by others (Kirzner, 1985, 1997). This alertness is a gift only some have (Kirzner, 1979). They act on these opportunities, moving the market closer to an equilibrium state, yet the convergence is again interrupted by shocks or mistakes, offering new opportunities, and keeping the market in constant progress (Kirzner, 1997). Based on Hayek’s (1945) work, Kirzner believes the key of the insight is new information, as all individuals have some time- and place-specific knowledge which is not accessible to others.

While they may seem opposites, Schumpeter based on the ‘made’ opportunity, Kirzner on the ‘found’, today it is believed that neither one theory nor the other is correct, yet that both occur in different situations (Blenker & Thrane-Jensen, 2007; Buenstorf, 2007; Chandler, DeTienne, & Lyon, 2003; Vaghely & Julien, 2010). While these early theories revolve around market dynamics, they include important insights for understanding

individual entrepreneurship. First, it is clear that the core of entrepreneurship is the shifting of resources into areas of higher efficiency. Second, entrepreneurship requires the active involvement of an entrepreneur who either creates or finds the opportunity to move the respective resources.

Today, the central theories in business entrepreneurship focus on the individual enterprise and the entrepreneur, rather than the role of business entrepreneurship in an overall market. This is based on the general understanding that entrepreneurship includes – and may be limited to – the establishment, management, and ownership of a new venture (Caird, 1991; Cromie, 2000; Gartner, 1985; Zhao & Seibert, 2006). The current dominant theory on entrepreneurship is the Individual-Opportunity Nexus, developed by Scott Shane (Eckhardt & Shane, 2003; Shane, 2000, 2003; Shane & Eckhardt, 2003; Shane & Venkataraman, 2000). Shane sees entrepreneurship as a nexus between an individual (entrepreneur) and an opportunity. He adopts Kirzner’s perspective that the opportunity must exist, and the individual ‘finds’ this opportunity. The ability to see these opportunities depends on the access of the individual to relevant information and better cognitive abilities to recognize opportunities as such. While based on Kirzner’s ideals, additional insight is offered by Shane and his co-authors on two levels: foremost, their theory underlines that both the individual and the opportunity are relevant for business entrepreneur, rather than one or the other. Additionally, rather than speaking of the abstract movement of resources, they are far clearer in what the business entrepreneur actually does: he introduces “new goods, services, raw materials, markets and organizing methods [...] through the formation of new means, ends, or means-ends relationships” (Eckhardt & Shane, 2003, p. 336; Shane & Eckhardt, 2003, p. 165).¹¹ This reasoning integrates Drucker’s work into entrepreneurship theory, who stressed that innovation – as described by Shane and his co-authors – plays a central role in entrepreneurial activity (Drucker, 1985).

Yet, Schumpeter’s theory has also found a new supporter. A second popular theory to date is Saras Sarasvathy’s “Effectuation”, which distances itself from causal entrepreneurship models (Dew, Read, Sarasvathy, & Wiltbank, 2009; Read & Sarasvathy, 2005; Sarasvathy, 2001a, 2001b, 2003, 2008). She sees entrepreneurship as

¹¹ The central role of new goods and services is also stressed by Companys & McMullen (2007).

creative action, through which individuals shape their environment, “making” opportunities which are artefacts of human action. The entrepreneur starts with the means available and a vague goal and, by including stakeholders and adjusting the environment, specifies the goal and, therefore, the opportunities, which become more pinpointed with every party included. Sarasvathy’s theory reinforces the active role of the entrepreneur in shaping opportunities, and puts forward the importance of collaboration with the outside world in the form of stakeholders. Based on these central understandings of entrepreneurship, social entrepreneurship is now elaborated on as a form of entrepreneurship, the traditional home to business entrepreneurship.

2.1.3.2. Relating social entrepreneurship to business entrepreneurship

On a practical level, social and business entrepreneurship are often intertwined, as Bornstein and Davis (2010) cynically mention: social enterprises often address problems caused by business entrepreneurship but, on the other hand, business enterprises often fund social entrepreneurship. In its young history, research on social entrepreneurship has also frequently interacted with research on entrepreneurship, a matter which Johnson comments on: “Interestingly, while many definitions of social entrepreneurship emphasize the ‘social’ rather than the entrepreneurial nature of the activity [...], much of the literature on social entrepreneurs emphasizes the ‘entrepreneurial’ characteristics of such individuals” (S. Johnson, 2000, p. 8). But is social entrepreneurship subsequently simply a new type of business entrepreneurship? Faltin (2009), for example, believes that for-profit and not-for-profit ventures should be considered equal and have the same dynamics, which Martin and Osberg (2007) also agree to. Yet, many researchers would disagree with this line of thought (e.g., Dorado, 2006). Bhawe, Jain, and Gupta (2007) call for researchers to carefully test the applicability of elements of business entrepreneurship theory in social entrepreneurship research rather than simply assuming their suitability. Swedberg (2006) also criticizes the seemingly lax use of the term entrepreneurial in social entrepreneurship studies, lacking thorough research in the entrepreneurial aspects of social ventures. So in what ways does social entrepreneurship differ from business entrepreneurship? First, insights can be gained from a short review of studies specifically comparing these two areas.

Many studies comparing social and business entrepreneurship revolve around potential differences between social and business entrepreneurs. These studies come to the conclusion that, in fact, social entrepreneurs act quite like business entrepreneurs (e.g., Canadian Centre for Social Entrepreneurship, 2001; Meyskens, Robb-Post, Stamp, Carsrud, & Reynolds, 2010; Seelos & Mair, 2005). These findings lead some researchers to believe that the differences between the two groups are in fact smaller than they may seem in public debate on the topic (Faltin, 2008). Yet, social entrepreneurs do not seem to have a sense of competition as heightened as business entrepreneurs (Ashoka & Foundation, 2009). Austin and her co-authors recognize various discrepancies, finding that the perceived opportunity of social entrepreneurs is different, their working context is slightly different, as market pressure is weaker than in business, and while the people and resources needed are quite similar, they are harder to get as social enterprises cannot pay as much as traditional businesses (Austin, Stevenson, & Wei-Skillern, 2006; Wei-Skillern, Austin, Leonard, & Stevenson, 2007). Chell (2007) finds social entrepreneurial challenges more diverse than those of business entrepreneurs. Most importantly though, the goals targeted by social entrepreneurs are different to those of business entrepreneurs (Bornstein & Davis, 2010; Chell, 2007; Seelos & Mair, 2005). As discussed, business entrepreneurs traditionally focus on profit achievement and economic value. Social entrepreneurs have social value creation as a core goal, possibly joined by economic goals to form a double bottom line (Boschee & McClurg, 2003). Some researchers see these two different goals as specifically associated with one type of entrepreneur: while social entrepreneurs maximize some form of social impact, business entrepreneurs maximize profit or shareholder value (Bornstein & Davis, 2010). Other researchers see a weaker differentiation, only viewing a shift in the relative importance given to social versus economic value creation when comparing social and business ventures (Mair & Marti, 2006). Based on the idea of value creation through both forms of entrepreneurship, the latter concept is closer to the understanding of social entrepreneurship on which this thesis is based.

So, if social entrepreneurship can offer both social and economic value creation, why not fully reject business entrepreneurship and move towards this more socially oriented type of venture? Some social entrepreneurship researchers may in fact share this opinion, expressing a certain averseness to business entrepreneurship. Pomerantz (2003), for

example, considers social entrepreneurship as “the antithesis of the militaristic principles that have been introduced into commerce [...] and have resulted in the [...] destruction of some local economies” (p. 28). Yet, social entrepreneurship can and should not fully replace traditional business activities (Dees, 1998b). First of all, economic value gain is still the main motivation for innovative human behaviour, the number of people willing to engage in selfless labour remaining fairly low (Sud et al., 2009). Hence, business entrepreneurship is an important motor for innovation and resulting societal wealth. Second of all, suggesting social entrepreneurship as the solution to all social problems takes responsibility away from governments or other support organisations, which could subsequently weaken their much-needed aid in combating societal problems (Karnani, 2009). And finally, social entrepreneurship is anything but easy. Finding a sustainable market-based solution to target very differentiated and vast problems is quite complex.¹² Hence, social entrepreneurship primarily offers a new perspective and option to address social issues, nothing more and nothing less.¹³ Having placed social entrepreneurship in the realm of entrepreneurship research, it is time to develop an understanding of social entrepreneurship on which to base the further elaborations in this thesis.

2.1.4. The problem of definition: Development of an understanding of social entrepreneurship as a basis for this thesis

Developing an understanding of social entrepreneurship means dealing with the definition of social entrepreneurship. This is a tedious endeavour in this field. As popular as the term “social entrepreneur” may be, its exact definition is still disputed, especially within academia (Jones & Keogh, 2006; R. L. Martin & Osberg, 2007). There is a magnitude of definitions on offer, some more exclusive (e.g., Bornstein, 2004), others more inclusive (Canadian Centre for Social Entrepreneurship, 2001; Light, 2005, 2006, 2009), and most of them with different emphases. The amount of discussion has been

¹² Dees (1998a) specifically lists numerous dangers of social ventures moving into revenue-generation: 1) it can draw attention away from the actual mission, 2) creating and running a successful business is not easy, 3) business skills, managerial ability, credibility are not necessarily a given, 4) the culture of commerce can clash with that of the non-profit venture, 5) commercialization can change the perception of and support from the community, 6) may meet governmental resistance, 7) may meet resistance from for-profit companies.

¹³ It should also not be an objective to replace traditional NPOs with social entrepreneurship, as only some social targets “fit” revenue generation (McBrearty, 2007; Weerawardena et al., 2010).

overwhelming for the field (Bornstein & Davis, 2010), and suggestions for changes in definitions are still diverse, Vasi (2009), for example, calling for a sociological, activist-driven definition of social entrepreneurship, or Roberts and Woods (2005) asking for a simple one. While some researchers are subsequently demanding the end of the definitional debate and a move towards content-based topics in social entrepreneurship research (Nicholls, 2006b; Peattie & Morley, 2008; Peredo & McLean, 2006), others consider the establishment of a joint definition as a fundamental step for the further development of the academic field (S. Johnson, 2000; Light, 2009).

One option to end the discussion could be the application of a preferably wide, inclusive understanding of social entrepreneurship. Spokesmen for this line of thought argue that such a broad umbrella would enable the inclusion of a larger number of initiatives, which could then profit from support initiatives (Light, 2006). In this sense, Dorado opens the field for numerous areas of society: “for-profit organisations that do good while doing well financially; or non-profit organisations that self-finance their do-good operations” (Dorado, 2006, S. 219). By applying such inclusive definitions, diverse activities fall under the social entrepreneurship term, ranging from NPOs selling Christmas cards to improve their work in developing countries, to large corporations attempting to improve their image through CSR. Mair, Robinson, and Hockerts (2006) describe social entrepreneurship as such a possible array of activities in the introduction to their compilation on social entrepreneurship.

a wide range of activities: enterprising individuals devoted to making a difference; social purpose business ventures dedicated to adding for-profit motivations to the nonprofit sector; new types of philanthropists supporting venture capital-like ‘investment’ portfolios; and nonprofit organisations that are reinventing themselves by drawing on lessons learned from the business world (p. 1)

Faced with these almost borderless definitions, it is not surprising that critics such as Trexler (2008) believe that “Social enterprise is charity’s web 2.0 – a would-be revolution as open to interpretation as a Rorschach blot” (p. 65). This dissertation does not aim at finding the ultimate definition of social entrepreneurship. In fact, some researchers have reached the insight that there is no singular definition for this

phenomena: "One definition seems not to fit all social enterprises" (Seanor & Meaton, 2007, p. 98). Nonetheless, it is important to mark out the underlying understanding of social entrepreneurship in this thesis to enable a fruitful analysis of a specific aspect of the field – in this case, intention formation. Similarly, in their recent book on social entrepreneurship, Bornstein and Davis (2010) include "A note on terms" on the first page to clarify how they understand core concepts. Here, rather than offering a new definition, existing definitions are reviewed and analysed, to frame the way the term is used. Also, hopefully, the comparison and structuring of definitions to date will help shed some light on what social entrepreneurship is perceived to be, and where existing differences may come from.

2.1.4.1. Social entrepreneurship definition analysis

Individual researchers have taken first steps in definition analyses of social entrepreneurship. One group focuses on the factors within the definitions: Dacin, Dacin, and Matear (2010) use their definition analysis to identify aspects which differ between the definitions of social entrepreneurship, while Peredo and McLean (2006) point out the similarities uniting the various concepts. A second group attempts to cluster different definition types: Neck, Brush, and Allen (2009) point out process-based versus entrepreneur-centric definitions and Mair and Marti (2006) briefly name three types: non-profits in search of alternative funding, commercial businesses acting socially responsibly and general means to alleviate social problems and catalyse societal transformation. The following definition analysis aims to both identify different definition types to structure the field, as well as point out definitional elements on which researchers agree and where discussion still exists. Previous studies have not fulfilled both of these tasks. Moreover, 53 definitions are included, a basis far larger than that of previous definition analyses in the field. The definitions included revolve around social entrepreneurship, the social entrepreneur or the social enterprise.

A first interesting finding is that all 53 definitions are different (see Appendix 1. for a complete list of the definitions and criteria). How can this be? Firstly, as described above, social entrepreneurship is a buzzword – it has appeared in business, politics, public policy and academia very quickly, leading to a lack of interaction and agreement between

people using the term. Second, as it is applied by various sectors in society, the term is directed at different audiences: politicians may use it to promote civic engagement, NPOs may use it to signal being up-to-date, and researchers may aim at creating a research field in its own right. Each of these sectors could shape the term in their own manner so that it best fits their purpose. In fact, four different approaches to social entrepreneurship can be identified.

2.1.4.1.1. Theoretical approaches to social entrepreneurship

The four approaches are identified based on a qualitative analysis of the definitions collected. Certain aspects appear to reoccur in some of these definitions, such as the description of innovative behaviour or the presence of an exceptional leader. In total 15 differentiating elements are selected.¹⁴ Each definition is controlled for the presence of each of these differentiating elements. Certain clusters of definitions are identified which tend to include the same differentiating elements. These clusters form four different approaches to social entrepreneurship. Following some examples of each cluster in Figure 4, each approach is briefly introduced.

¹⁴ For a complete overview of criteria chosen and the categorisation of each definition, see Appendix 1.

Type	Examples of definitions
The heroic social entrepreneur	<p>“Transformative forces: people with new ideas to address major problems who are relentless in the pursuit of their visions, people who simply will not take "no" for an answer, who will not give up until they have spread their ideas as far as they possibly can” (Bornstein, 2004)</p> <p>“Social entrepreneurs act similarly, tapping inspiration and creativity, courage and fortitude, to seize opportunities that challenge and forever change established, but fundamentally inequitable systems” (The Skoll Foundation, 2009)</p>
The trading NPO	<p>“Any earned-income business or strategy undertaken by a non-profit distributing organisation to generate revenue in support of its charitable mission” (Boschee, 2003)</p> <p>“[...] Social enterprises, i.e. trading organizations within the social economy (co-operatives, mutuals, community business, and voluntary or not-for-profit organisations)” (Spear, 2006)</p>
The innovating sectors	<p>“[...] A term used to describe innovative approaches to solve social problems” (Desa, 2007)</p> <p>“[...] Any venture that has creating social value as its prime strategic objective and which addresses this mission in a creative and innovative fashion. Whatever organisational form [...] is irrelevant” (Desa, 2007)</p>
The entrepreneurial social enterprise	<p>“[...] Social enterprise is the marriage between the market and the social purpose” (Frances, 2008)</p> <p>“...A process, that includes: the identification of a specific social problem and a specific solution (or a set of solutions) to address it; the evaluation of the social impact, the business model and the sustainability of the venture; and the creation of a social mission-oriented for-profit or a business-oriented nonprofit entity that pursues the double (or triple) bottom line” (Robinson, 2006)</p>

Figure 4: Four approaches to understanding social entrepreneurship

The heroic social entrepreneur

The first approach to social entrepreneurship puts the social entrepreneurs at the heart of the definition and presents them as a heroic figure (Bornstein, 2004; Crutchfield & McLeod Grant, 2008; Elkington & Hartigan, 2008; Schwab Foundation, 2009). The social entrepreneur is, hereby, portrayed as an exceptional person, whose talent and personality traits enable them to become a social entrepreneur. Ashoka, which largely supported the establishment of the term social entrepreneur as described above, writes on their homepage “Social entrepreneurs are individuals with innovative solutions to society’s most pressing social problems. They are ambitious and persistent, tackling

major social issues and offering new ideas for wide-scale change” (Ashoka, 2009). The contributions are often written for the public at large or in praise of specific individuals, idealizing the ‘rare breed’ of the social entrepreneur. Hereby, this work inspires and motivates readers to choose related career paths. Yet, when looking at practice, researchers identify a hostile attitude towards such portrayals (e.g., Spear, 2006). Seanor and Meaton (2007), for example, found no example of extraordinary personalities in their interviews with innovative communal organisations: “[...] there were no tales of the leader who like a superhero flew in and put the organisation back on the rails to run smoothly” (p. 94). Hence, to date, this approach lacks empirical support and cannot be placed in the centre of academic research on social entrepreneurship.

The trading NPO

The second approach to social entrepreneurship looks at the term from the perspective of traditional NPOs (e.g., definitions from Boschee & McClurg, 2003; Dart, 2004; Spear, 2006; Wei-Skillern et al., 2007; and following the line of thought of Mike Bull & Crompton, 2006; Foster & Bradach, 2005; McBrearty, 2007). Here, social entrepreneurship is viewed as a simple extension of existing non-profit work, by adding revenue-generating elements to these organisations. In large parts, they reject the heroic image of the social entrepreneur and focus on teams or existing organisations. On the positive side, the rejection of the heroic figure makes social entrepreneurship more accessible, and the focus on teachable skills may make personal identification with the field easier. This approach also encourages the non-profit sector to embrace this evolution and become more efficient. Yet, this approach’s flaws may outweigh the positive. By limiting its perspective to NPOs, it excludes any form of for-profit social venture and there is no mention of a pretence to innovate. By merely focussing on the criteria of revenue generation, endeavours are included which may not fulfil the innovative character an entrepreneurial activity must have. Therefore, this perspective cannot be adapted for the analysis of social entrepreneurship, especially not within the field of entrepreneurship.

The innovating sectors

A third approach to social entrepreneurship focuses on the goal of innovation for a social purpose, often stressing the fact that this can occur within business, NPOs, or government

(e.g., Austin et al., 2006; S. Johnson, 2000). This is often applied by researchers and authors from the area of public policy, aiming at passing on parts of their societal responsibilities to social enterprises (e.g., Leadbeater, 1997). Advantages of this perspective are the portrayal of the universality of the phenomenon and the mention of innovation, which is the core of entrepreneurship as it is understood in academia. It may even motivate public policy officials to act in a more effective fashion. Yet, this perspective does not include market discipline, as revenue generation in a competitive field is not a central element of this approach. In this sense, the term innovation is used laxly in this context. Subsequently, this approach cannot be applied in the study of social entrepreneurship within the field of entrepreneurship.

The entrepreneurial social enterprise

The fourth and final approach views social entrepreneurship as a form of business, focussing on the entrepreneurial element of its activities (e.g., Peredo & McLean, 2006; J. A. Robinson, 2006). Applying concepts and theories from entrepreneurship research, it describes how social entrepreneurship can use market forces to make a difference. Faltin (2009) uses it quite broadly, describing social entrepreneurship as “a concept that seeks to describe how social problems and social needs can be addressed with the tools and methods of business entrepreneurship” (p. 11). Or as Frances (2008) somewhat poetically describes: “the marriage between the market and the social purpose” (p. 152). As this study is also based on the idea of social entrepreneurship as a form of entrepreneurship, this perspective offers the largest compliance. Yet, caution must be called for. Using this approach in its most popular form, it is hard to pinpoint how and if social entrepreneurship differs from socially responsible business activities, such as CSR, or socially active companies, such as greentech ventures. Nonetheless, it can offer a basis of the understanding of social entrepreneurship underlying this thesis.

Having found a basis in the entrepreneurial social enterprise, further core aspects of social entrepreneurship will be presented which can further shape an understanding of social entrepreneurship.

2.1.4.1.2. Selected factors shaping approaches to social entrepreneurship

As described above, all forms of enterprise create value. Social entrepreneurship places relative importance on the creation of social value. Based on the entrepreneurial understanding of social entrepreneurship, this value is created within an entrepreneurial venture on a competitive market. Thus far, a common understanding has been developed. Nonetheless, the two aspects of the *role of the social mission, revenue, and profits* and the *extent of change* inflicted by social entrepreneurship must be discussed to complete the picture of the understanding of social entrepreneurship underlying this thesis.

The role of the social mission, revenue and profits

The role of revenues and profits and the subsequent effects on social enterprise's mission, is maybe the most vibrantly discussed topic in the conceptualization of social entrepreneurship. Interestingly, the fact that social enterprises can and should earn revenues is widely agreed on (Boschee, 1995; Reid & Griffith, 2006). As Boschee and McClurg (2003) put it: "Unless a non-profit is generating earned revenue from its activities, it is not acting in an entrepreneurial manner. It may be doing good and wonderful things, creating new and vibrant programs: but it is innovative, not entrepreneurial" (p. 3). These revenues can come from the intended beneficiaries of the venture, from third parties with a vested interest (such as governments) or other customers (Dees, 1998b). By creating an independent revenue stream, social enterprises are believed to be less dependent on external support and better equipped for competition than NPOs for example (Dees, 1998b; Sharir et al., 2009). In the most extreme sense, the Nobel Prize winner Muhammad Yunus campaigns for the organisational form of social business, which describes fully self-funded businesses, which have social goals and reinvest all profits in their social mission (Yunus, 2007). The interesting aspect stemming from both social and financial goals is the dualism between the two, which may contradict each other at first, and which Boschee (1995) describes as the "twin carrots of mission and money" (p. 25). Dees uses these two poles to portray the social enterprise as a hybrid form of organisation between traditional NPOs and traditional businesses (Dees, 1996). He sees social entrepreneurship as a continuum, in that it always pursues both social and financial goals, with the addition that sometimes the former dominate and sometimes the latter. Hereby, Dees supports an inclusive view of social entrepreneurship,

in which various activities can be included. Within her Social Enterprise Typology, Alter (2007) further specifies Dees' findings, and differentiates between four organisational forms within Dees' continuum, of which only one can be considered a social enterprise. On the one hand, she separates social entrepreneurship from socially responsible business and CSR by giving social goals relatively higher importance than financial ones. This is also in line with the idea of social value creation through social entrepreneurship. On the other hand, she separates social enterprises from NPOs as they generate revenues, demanding that social enterprises should be full-fledged businesses, meaning that they engage in strategic planning, pursue a clear vision, and formulate growth and revenue goals within a clear plan (Alter, 2007, p. 17). These two perspectives are visualized in Figure 5.

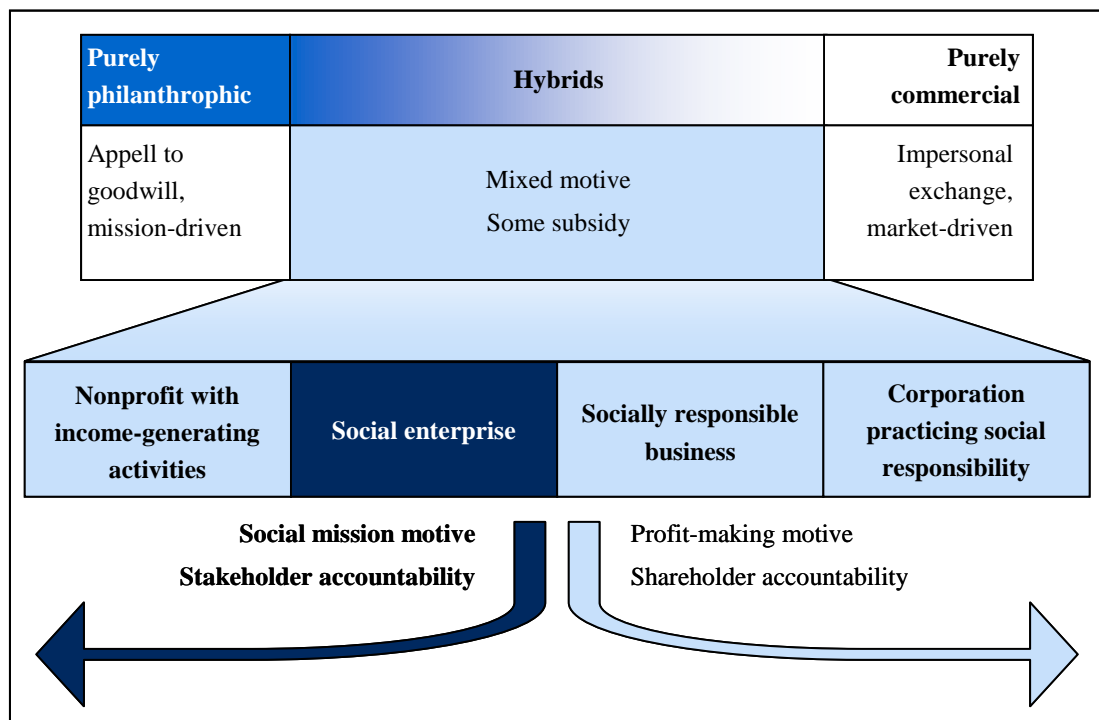


Figure 5: Social enterprise spectrum based on Dees (1996) and Alter (2007)

Hence, returning to the initial question of mission, revenues and profits: social enterprises generate revenues. They have both financial and social goals, yet the social mission dominates the financial one, a clear hierarchy also called for by Edwards (2010). This puts two of the factors (mission and revenues) into place, leaving profits. The question of

profits is mainly discussed asking if social enterprises should act as non-profit or for-profit companies. Legal issues¹⁵ aside, researchers agree that there is no one correct answer to this question. Dees (1998b) explains that “the challenge is to find a financial structure that reinforces the organisation's mission, uses scarce resources efficiently, is responsive to changes, and is practically achievable” (p. 60). This can be applied to both non- as well as for-profit, depending on the aim of the venture (Durieux & Stebbins, 2010; Foster & Bradach, 2005). To move away from this discussion, Jones and Keogh (2006) even suggest the term “more than profits”. Thus, the most important thing is that the business model fits the social aim of the business and profits can subsequently be achieved by social enterprises, yet they need not necessarily generate profit.

Having achieved an understanding of revenues, profit and mission within social entrepreneurship, it must be added that, of course, in practice grey areas remain. How, for example, can you tell if the social mission or the financial mission truly drive a business? And how do you classify greentech companies who earn high profits developing socially valuable products and who claim to have a fully social focus? As Peredo and McLean (2006) recognize, the borders are blurred: “So there are borderline cases on this matter of profit/non-for-profit classification. And that may suggest that the border should not be regarded as fundamentally important” (p. 61). There will always be discussion on the grey areas of social entrepreneurship and, in the case of a complex area with multiple goals, that is neither surprising nor problematic.

Many researchers consider the established position within Dees’ and Alter’s spectrums above as proof enough of being a social enterprise (B. B. Anderson & Dees, 2006; Mair & Marti, 2006). Surely, this does differentiate social enterprises from traditional NPOs and traditional businesses. Yet, as one example, even today, over 50% of traditional NPOs generate revenues (Massarsky & Beinhacker, 2002). Hence, to be actually considered social entrepreneurial, the venture needs to do more than earn money, it needs to act entrepreneurially. This goes beyond business-like aspects required by Alter, and entrepreneurial behaviour such as value creation through innovation, opportunity recognition, and competitive market participation should be kept in mind.

¹⁵ For discussions on the legal status of social enterprises, see Bornstein and Davis (2010), Bromberger (2011), Fruchterman (2011), Glaeser and Shleifer (2001).

Systematic change or innovative solutions

One additional aspect on which researchers have different perspectives is the extent of social change social entrepreneurship must result in. Some authors – mostly practitioner-related – see the goal of social entrepreneurship in catalytic, systematic social change (Ashoka, 2009; Bornstein, 2004; Crutchfield & McLeod Grant, 2008; Elkington & Hartigan, 2008; Schwab Foundation, 2009), while others settle for innovative solutions to social problems, no matter the size (Alter, 2007; Austin et al., 2006; Desa, 2007). Peredo and McLean (2006) call for the avoidance of such notions of success or estimability as they may keep people away from social entrepreneurship. Or as the blogger Tim Odgen (2011) stated on the SSIR page: “The next time you’re urged to “think big,” give thinking small a try”. This thesis takes the same stand, based on an extended reasoning. Expecting catalytic social change not only limits the amount of people considered as social entrepreneurs, but it is also impossible to measure upfront (Leppert, 2008). Hence, people would only be considered social entrepreneurs *after* their work had come to fruition and led to wide-scale change. In addition, not only problems with a wide reach deserve a solution. Subsequently, the innovative targeting of social issues through business is considered social entrepreneurship, no matter how large or small the problem.

2.1.4.2. Understanding of social entrepreneurship underlying this thesis

To sum up, this thesis understands social entrepreneurship as a form of entrepreneurship. A social entrepreneur runs a business that marries a core social mission with a competitive value proposition. Acting entrepreneurially, this involves the introduction of innovative products or services in competitive markets through which not only revenues (economic value) are generated, but also social value. Acting socially, this social mission dominates the economic mission of the social enterprise. This means that while the company acts within a market, earning money competitively, its primary focus is to combat certain social problems, e.g., poverty or homelessness. Due to this perspective, decisions are always made in favour of the social cause in focus – even if it means lower profits or loss of revenue. Finally, it is not necessary for the social enterprise to change an entire country or the world, it should rather focus on the scope which is most effective for its cause.

2.2. Entrepreneurial intentions

Having developed an understanding of social entrepreneurship, rooted in the area of entrepreneurial studies, business entrepreneurial intentions offer a starting point for the analysis of social entrepreneurial intention formation. First, an understanding of intention within this study is presented. Second, the role of intentional studies in entrepreneurship is depicted, including their developmental history. Third, and finally, the concept of intention models is introduced.

2.2.1. Understanding of intention in this study

The notion of intentionality dates back to Socrates who studied why people intend evil behaviour (Krueger, 2009). In general, intentions represent a belief that an individual will perform a certain behaviour (Krueger, 2000). Regarding the realm of entrepreneurial intentions specifically, there are numerous definitions (M. Conner & Armitage, 1998). This thesis adopts the understanding of Thompson (2009) who analyses various options and comes to the conclusion that entrepreneurial intentions can most practicably and appropriately be defined as “a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future” (p. 676).¹⁶ Certainly, consistent action cannot be guaranteed. Behavioural intention is the formalization of the intention to *try* and do something in the future (Ajzen, 1988, p. 132).

2.2.2. Intentional studies in entrepreneurship

A number of intentional studies exist in entrepreneurship research. Here, the reasoning for conducting them is explained. In addition, a brief review of their history in this field of study is undertaken. Specific findings of selected studies are discussed in Chapter 2.2.4.3.2.

¹⁶ It should be noted that in the empirical analyses belonging to this thesis, the time until the enactment of the target behaviour is limited to “five years after having completed their studies”. This is due to the fact that the theoretical model applied, the theory of planned behaviour, requires a limited time frame in describing the target behaviour (Walter, 2008).

2.2.2.1. The motivation behind intentional studies in entrepreneurship

A long tradition of entrepreneurship research has dealt with the question why some people become entrepreneurs (Shane & Venkataraman, 2000; Teixeira & Forte, 2009). The popular option of simply looking at differences between entrepreneurs and non-entrepreneurs does not answer this question, as it may point out how they differ yet does not necessarily infer what led them to choose one path or the other (Walter, 2008). Hence, to answer the question, the focus should lie on venture creation. One obvious option is to accompany and study the entire process of founding. This is barely feasible, as this process often takes many months or years and may include a substantial time lag between idea formation and the actual founding (Cromie, 2000; Fueglistaller, Klandt, & Halter, 2006). Another option is to study existing entrepreneurs, and ask them about their founding experience retrospectively. However, this leads to challenges in data analysis, as ex-post surveys are prone to ex-post reasoning and a romanticised view on previous behaviour. In entrepreneurship, interviewing current entrepreneurs also leads to a survival-bias, as only those subjects are included in the study who successfully founded and still maintain their venture (Matthews & Moser, 1996; Walter, 2008; Walter & Walter, 2008). Faced with the disadvantages of the prior suggestions, prospective analyses are applied, looking at people who could or will become entrepreneurs in phases prior to founding (Krueger & Carsrud, 1993). This may enable the prediction of behaviour and also the explanation of the underlying motivation (Krueger, 2003). This is especially true for rare phenomena – as is venture creation – as the process can be analysed without observing the phenomena that actually occur (Krueger & Carsrud, 1993).

Studying the pre-founding phase of entrepreneurship

Focusing on the process previous to venture creation, several types of analyses have been suggested to find out more about people who are possible future entrepreneurs (Liñán & Javier Santos, 2007; Walter & Walter, 2008). Initially, a large group of researchers analysed the links between traits and entrepreneurial behaviour. While certain traits are associable with entrepreneurs, no causal link is detected between the two (Gartner, 1989). Hence, the person of the entrepreneur was excluded from the analyses and contextual

factors surrounding the founding of ventures took centre stage (Gnyawali & Fogel, 1994). Yet, removing the entrepreneur from the equation lead to a lack of insight (Gartner, Shaver, Gatewood, & Katz, 1994; Shaver & Scott, 1991), as “no confluence of contextual circumstances can by itself create a new venture” (Herron & Sapienza, 1992, p. 50), or as Carland, Hoy, and Carland (1988) poetically describe: “you can’t dance the dance without the dancer”. Putting the entrepreneur back into the picture, a new line of study analysed the behavioural steps taken in becoming an entrepreneur (Boyd & Vozikis, 1994; Gartner, 1989; Herron & Sapienza, 1992). Again, this left researchers unsatisfied, Gartner himself pointing out that knowing what entrepreneurs do is interesting, yet *why* they do it may be even more so (Gartner, Bird, & Starr, 1992). He and his co-authors see prospects in looking at the cognitive processes that motivate people to become entrepreneurs and how these actors think (Gartner et al., 1994). Such cognitive approaches have proven fruitful in entrepreneurship research (Baron, 1998; Baron & Ward, 2004; Forbes, 1999; Krueger, 2003). Based on established theories and models from philosophy and social psychology (Krueger, 2009; Krueger & Kickul, 2006), researchers have developed models of cognitive processes leading up to venture creation (Bird, 1988; Boyd & Vozikis, 1994; Busenitz & Lau, 1996; De Carolis & Saporito, 2006; Herron & Sapienza, 1992; Katz, 1992; Krueger & Brazeal, 1994; Naffziger, Hornsby, & Kuratko, 1994). The most successful area has been the study of causal links between attitudes and entrepreneurial behaviour (Armitage & Conner, 2001; Kim & Hunter, 1993a). The most popular approach to linking attitudes and behaviour is via integrated models, including additional levels such as intentions (Olson & Zanna, 1993).

Why intentions work in entrepreneurship

The line of reasoning behind using intentions to analyse venture creation is straightforward. Human behaviour is either stimulus-response or planned (Krueger, 2009). Since venture creation is conscious and voluntary (Krueger, Reilly, & Carsrud, 2000), entrepreneurship can be considered planned behaviour (Bird, 1988; Krueger, 1993; Krueger & Carsrud, 1993; Krueger et al., 2000). All planned behaviour is intentional (Krueger, 2000, 2009). Therefore, considering entrepreneurship as a multi-step process leading up to venture creation (Gartner et al., 1992; Gartner et al., 1994; Krueger et al., 2000; Ruhle, Mühlbauer, Grünhagen, & Rothenstein, 2010), intention is

the first step and should be looked into (S. H. Lee & Wong, 2004). And surely, though not all intention leads to action, no action will happen without intention (Krueger, 2000).

2.2.2.2. Brief history of intentional studies in entrepreneurship

Bird (1988) was one of the first authors to place intentions at the heart of entrepreneurship studies, identifying them as a core aspect differentiating entrepreneurship from management studies. His model was adjusted by Boyd and Vozikis (1994), introducing the idea of self-efficacy. Their ideas were translated into models based on the theory of planned behaviour by Ajzen and Fishbein, and Shapero's entrepreneurial event which met a great response in the academic community. Currently, the leading researchers employing and progressing these models are Norris Krueger and Lars Kolvereid, while numerous others also successfully apply intention-based models in entrepreneurship research (e.g., Goethner, Obschonka, Silbereisen, & Cantner, 2009; Guerrero, Rialp, & Urbano, 2008; Kolvereid, 1996b; Kolvereid & Moen, 1997; Krueger & Brazeal, 1994; Krueger & Carsrud, 1993; Krueger et al., 2000; Liñán, Rodríguez-Cohard, & Guzmán, 2008; Lüthje & Franke, 2003; S. Müller, 2008a; Ruhle et al., 2010; Souitaris, Zerbinati, & Al-Laham, 2007; Teixeira & Forte, 2009; Walter, 2008).

2.2.3. Intention models

Intentions are analysed within intention models. Typically, these models show both the factors leading up to intention as well as the link to the behaviour resulting from intention, the so-called target behaviour. In this sense, intentions are mediating influences between factors and behaviour (Krueger et al., 2000). Research has shown, that the factors do not directly influence intentions, yet they influence attitudes which then affect intentions (Krueger, 2003), as Krueger, Reilly, and Carsrud (2000) describe: "In its simplest form, intentions predict behaviour, while in turn, certain specific attitudes predict intention" (p. 413). This line of thought is graphically outlined in Figure 6.

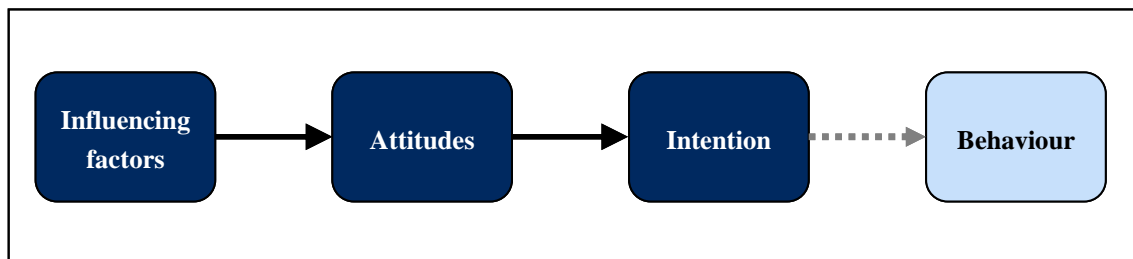


Figure 6: The basic intentions-based process model of behaviour

Causal link between intention and behaviour

As previously mentioned, one advantage of intention analysis is that the target behaviour does not need to occur to study some core cognitive processes leading up to it – having the intention to do something does not necessarily mean you will do it right away (Krueger & Carsrud, 1993). Hence, behaviour is mostly not included as a variable in intention models. Nonetheless, it can be assured that the causal link between intentions and behaviour does actually exist, even if it is not tested in the models (Armitage & Conner, 2001; Sheppard, Hartwick, & Warshaw, 1988; Sutton, 1998). Liñán, Rodríguez-Cohard, and Guzmán (2008) focus on this link in a longitudinal study and find that even after a substantial time lag, entrepreneurial intention is a strong predictor of behaviour (also stated by S. Müller, 2008b). Of course, stating a preference for self-employment doesn't necessarily mean one already has an opportunity in mind – yet, one can be considered a potential entrepreneur (Bönte & Jarosch, 2010). And even if an inspiration is already given, it takes intention to put the action into course (Bird, 1988). Hence, entrepreneurial intention is an antecedent and determinant of entrepreneurial behaviour (Kolvereid & Isaksen, 2006). This causal relationship is especially strong when behaviours are not influenced by a problem of control, so that intentions can very much predict action (Ajzen, 1991). Results are very pleasing over all kinds of situations, meta-analyses showing that intentions explain 30% of variance in behaviour (Autio, Keeley, Klofsten, Parker, & Hay, 2001). In comparison, personal factors tend to predict only 10% of variance in behaviour (Mischel, 1968). Intention-behaviour links are also superior to direct attitude-behaviour links (Kim & Hunter, 1993b; Krueger & Carsrud, 1993).

Overall, intentions are an adequate predictor of behaviour and intention models can do without a behavioural variable.

Antecedents of intention

Putting the final behaviour aside, intention models focus on the elements leading up to and shaping intentions. Numerous factors have been suggested as effects on entrepreneurial intentions (Bird, 1988; S. H. Lee & Wong, 2004; Reynolds, 1991). These can be cognitive, motivational factors, or situational, non-motivational factors (Liñán et al., 2008; Shane, Locke, & Collins, 2003). In his early model, Bird (1988) assumes that personal history factors predispose individuals to entrepreneurial intentions. As previously suggested, the link between such personal factors and intentions is actually mediated by attitudes. Kolvereid (1996b) adds numerous demographical variables to his model of employment intentions and then shows that the attitudinal antecedents of intentions are far better predictors of intentions than demographics. Overall, in general studies, attitudes have shown to explain about 50% of variation in intentions (Autio et al., 2001), a link confirmed in Kim and Hunter's (1993b) meta-analysis. Specifically, looking into entrepreneurial intentions, the core antecedents seem to be forms of perceived desirability and perceived feasibility of entrepreneurial action, which themselves are affected by personal and social influences (Krueger & Kickul, 2006). Therefore, factors such as personal characteristics suggested by Bird have no direct effect on intention, only indirectly through perceptions of feasibility and desirability (Krueger & Carsrud, 1993; Krueger et al., 2000).

2.2.4. The theory of planned behaviour as a theoretical framework for the development of a model on social entrepreneurial intention formation

As previously described, intention models help develop insights into the development of entrepreneurial intentions.¹⁷ One of the most prominent models is Ajzen's theory of planned behaviour (TPB) (Ajzen, 1991; Krueger & Kickul, 2006). This theoretical framework is often applied in entrepreneurship research, and is the most established and

¹⁷ Guerrero, Rialp, and Urbano (2008) offer an overview of the different models used to study entrepreneurial intentions.

successful framework for analysing behavioural intentions. It is based on the idea that intentions to undertake a certain behaviour are shaped by an individual's desire to perform the behaviour and their confidence in their ability to perform it. Even though it was created in the area of social psychology rather than management research (Krueger & Carsrud, 1993), and has shown broad applicability in various fields of research (e.g., Hrubes, Ajzen, & Daigle, 2001; Thorbjornsen, Pedersen, & Nysveen, 2007), as meta-analyses by Sutton (1998) and Armitage and Conner (2001) show, the TPB has gained a special position in the field of entrepreneurship research. Numerous studies successfully apply TPB in the realm of business entrepreneurship (Autio et al., 2001; Kolvereid, 1996b; Kolvereid & Isaksen, 2006; Krueger et al., 2000; Liñán & Chen, 2007; Liñán, Rodríguez-Cohard, & Rueda-Cantuche, 2010; S. Müller, 2008a; Ruhle et al., 2010; Scheiner, 2009; Souitaris et al., 2007; Tkachev & Kolvereid, 1999; Walter, 2008), several research overviews confirming its applicability (e.g., Forbes, 1999; Krueger & Carsrud, 1993). Furthermore, the TPB has shown relevance in setting up educational programs for entrepreneurship students by identifying the areas on which to focus in training (Fayolle & Degeorge, 2006; Krueger & Carsrud, 1993). Therefore, TPB seems adequate as a theoretical framework for the study of social entrepreneurial intention formation.

In the following chapters, first, the classical TPB-model is presented. Second, the ability of extending the classical model is discussed. Third, core studies on entrepreneurship which apply TPB-related models are presented.

2.2.4.1. The classical model of the theory of planned behaviour

The TPB is an extension of the theory of reasoned action (TRA) (Ajzen, 1991). The TRA was developed in the area of social psychology by Martin Fishbein in the sixties (Ajzen & Fishbein, 1980; Rossmann, 2011). As in the case of research on entrepreneurial behaviour, previous social psychology studies had failed to show direct links between traits or attitudes and behaviour. Fishbein and later also Icek Ajzen developed the idea that if a subject acts rationally and in control of its own actions (Ajzen, 1988; Ajzen & Fishbein, 1980), one can predict its actions based on the intentions it has – because in this case people will do exactly what they intend to do (Rossmann, 2011). Even when absolute control is not given, intentions can at least be seen as a level of commitment to a

future target behaviour (Krueger, 1993). Central is the intention to act. The stronger the intention is, the more likely the individual will perform always and if the performance is within their vocational control (Ajzen, 1991). Not only regarding the level of intention, yet by also taking into consideration the determinants of the intention, the TRA explains behaviour rather than merely predicting it (Ajzen, 1988, 1991; Ajzen & Fishbein, 1980).

But how is the intention formed and made stronger or weaker? According to the TRA, the intention to undertake an action is based on the personal attitude towards the behaviour, on the one hand (ATB), and the social pressure to undertake the behaviour (known as subjective norm (SN)), on the other (Ajzen & Fishbein, 1980). The former refers to the evaluation of the subject that the action in question is a good or a bad thing. The latter describes how much the subject perceives its close social surroundings to want it to do the action in question. In an additive fashion, these cognitive elements shape the subject's level of intention – subjects will behave in the way they think is good and they believe others think they should (Ajzen & Fishbein, 1980). As presented, the TRA solely concentrates on volitional behaviour, completely under the control of the individual. The TPB extends the TRA by the determinant of perceived behavioural control (PBC) which comes from social cognition models (Bandura, 1997). It refers to the extent to which the subject believes it is able to undertake the respective action. In this way, the TPB shows how the control the subject believes it has with regard to the given behaviour, can affect their intention formation. Hence, in the TPB, intentions are influenced by three elements: ATB (favourable vs. non-favourable personal evaluation of the behaviour), SN (perceived pressure from social surroundings to perform the target behaviour) and the degree of PBC (perceived ease or difficulty at realizing the action) (Ajzen, 1991). These three elements are referred to in this thesis as “attitude-level TPB-constructs”. These three factors form behavioural intentions through an additive function (Goethner et al., 2009). Hence, “as a general rule” (Ajzen, 1988, p. 132f.), the higher each of the three determinants is, the stronger the individual's intention should be. The relative importance of each element will vary across situations. In this form, the TPB has shown robust results in management research (Sheppard et al., 1988). The classical model is shown in Figure 7.

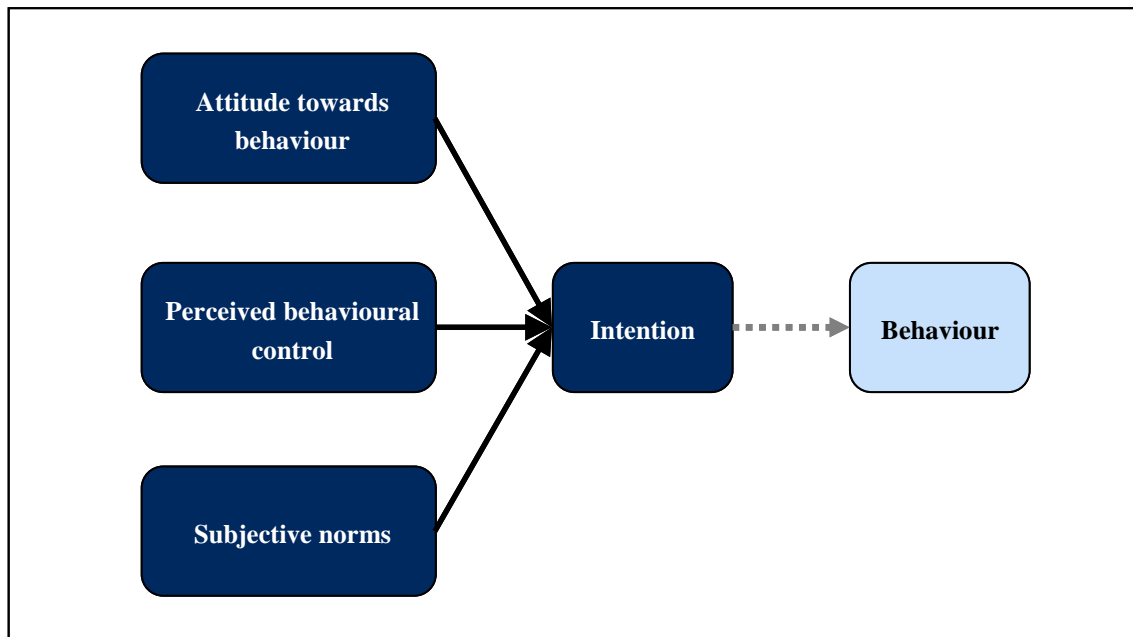


Figure 7: Classical model of the theory of planned behaviour (based on Ajzen, 1991, p. 182)

In its original form, the TPB included salient beliefs as antecedents of the attitude-level TPB-constructs. Based on Fishbein and Ajzen's Expectancy-Value Theory (1975), the understanding was that attitudes are formed not only by the evaluation of the potential outcomes of the target behaviour, but also by the likelihood with which each outcome is expected. In this sense, an attitude is positive overall if the outcome of the behaviour is considered positive and is considered likely (Armitage & Conner, 2001, p. 474). Ajzen gets quite specific regarding the beliefs relevant for the TPB. They are behavioural (which influence attitudes), normative (which influence one's subjective norms) or control (which are the basis for perceived behavioural control) beliefs (Ajzen, 1991). Yet, the existence of these beliefs has not been fully proven empirically (Ajzen, 1991), and numerous studies have successfully shown how the attitudes can be measured directly, collapsing beliefs and evaluations of potential outcomes into attitude-level TPB-constructs (Ruhle et al., 2010). Hence, the TPB used in this study considers the classical TPB-constructs on an attitude-level.

2.2.4.2. Adapting and extending the model of the theory of planned behaviour

Another aspect of the TPB which makes it attractive for research on social entrepreneurial intention formation is that the classical model can be adapted to suit specific realms of study. Existing constructs can be adapted to study settings, additional constructs can be added, and causal links can be adapted. Figure 8 graphically shows the options of extending the classical model of the theory of planned behaviour.

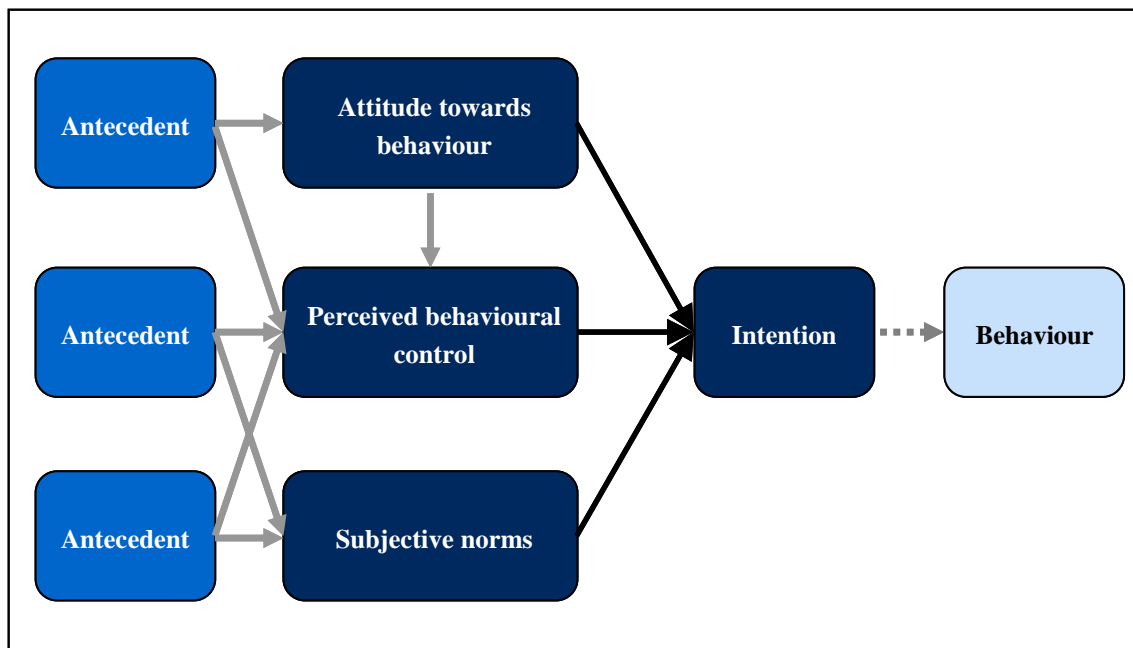


Figure 8: Classical model of the theory of planned behaviour extended by antecedents

Adaptation of the classical TPB constructs is a necessary prerequisite as each study deals with a different target behaviour. TPB-models on business entrepreneurial intentions, for example, each have constructs specifically focused on the target behaviour of “becoming a business entrepreneur”. For example, attitude towards a target behaviour is more specifically “attitude towards becoming a business entrepreneur” – and all the given constructs are adapted accordingly.

Extension of the classical TPB-model also occurs, though not as frequently. Ajzen (1991) himself calls for extensions of the model where these can offer additional insights and specifically stresses the importance of adding antecedents of ATB, PBC and SN (Ajzen,

1988). From Ajzen and Fishbein's (1980) point of view, further variables can only affect intentions through the attitude-level TPB-constructs. By modelling not only attitude-level TPB-constructs as determinants of intention but potential antecedents of these constructs themselves, this study can gain a deep level of insight into the formation of social entrepreneurial intentions.

In the realm of business entrepreneurial intentions, several authors suggest extending the TPB to improve the quality of outcomes (M. Conner & Armitage, 1998). One option is for authors to place additional constructs on the attitude-level of ATB, PBC or SN. Davidson (1995), for example, introduces the construct of entrepreneurial conviction. And Reitan (1997) considers "Perceived Profitability" as an additional construct besides ATB, PBC and SN.

Alternatively, additional constructs or variables are added as antecedents to the attitude-level TPB-constructs. Often control variables, such as self-identity or past behaviour are included (M. Conner & Armitage, 1998). For example, Goethner, Obschonka, Silbereisen, and Cantner (2009) enrich their model of academics' entrepreneurial intentions by adding control variables. Research in the field of psychology shows that behaviour is shaped both by individual and environmental factors (Shane et al., 2003). These are also and often applied to the field of entrepreneurship research in the area of opportunity recognition. Here, first typologies of relevant factors have been developed (Companys & McMullen, 2007; Frank & Mitterer, 2009; Kor, Mahoney, & Michael, 2007; Shane, 2000), yet none has theoretically and empirically established itself. Individual TPB-based models of entrepreneurial intentions also include individual and environmental factors as potential antecedents to the attitude-level TPB-constructs. Krueger's (2000) model, for example, shows that numerous exogenous factors can influence the perceived desirability and feasibility of an entrepreneurial venture. Liñán, Rodríguez-Cohard, and Rueda-Cantuche (2010) include entrepreneurial knowledge as an antecedent of ATB regarding business entrepreneurship.

Besides adapting or adding variables, the *causal links between the elements of TPB-models are also modified*. The original assumption of linear causality has previously been criticized (Mark Conner & McMillan, 1999). Goethner, Obschonka, Silbereisen, and Cantner (2009) incorporate interaction effects into their model of academics'

entrepreneurial intentions. Several authors, e.g., Elder and Shanahan (2006), undermine the role of interactions, for example, between the person and the context in human development. Also, rather than assuming an additive function in line with Ajzen, the model may be multiplicative, so that one “zero” value cannot be cancelled out by another high value (Krueger, 2003). In any case, it is important that the causal relationships reflect the interactions suggested based on theoretical considerations. These various options are taken into consideration when developing the model of social entrepreneurial intention formation.

2.2.4.3. The theory of planned behaviour in entrepreneurship

As mentioned above, numerous studies have successfully applied the TPB in studying entrepreneurial intentions. Its application in the realm of business entrepreneurship was first suggested by Krueger and Carsrud (1993), and initially tested by Kolvereid (1996b). In the following paragraphs, some core empirical work and the resulting insights are presented. But before this revision starts, an alternative model used to analyse entrepreneurial intentions, Shapero’s model of the entrepreneurial event, is briefly discussed.¹⁸ It is important to understand this model, as much empirical work this study later elaborates on includes aspects of Shapero’s model in their TPB-based work.

2.2.4.3.1. A short detour: Shapero’s entrepreneurial event

In their fundamental work, Shapero and Sokol (1982) deal with the social dimensions which may affect entrepreneurship. They base their interest in the fact that history has shown that there are some entrepreneurially strong social groups (e.g., the Jews in America) and other less entrepreneurial groups (e.g., people belonging to charters in medieval Europe). To avoid previous problems regarding the identification of the person “entrepreneur” and the differences between one-time, nascent, and multiple entrepreneurs, Shapero and Sokol focus on the “Entrepreneurial Event”. It demands the initiative of an individual or group, the consolidation of resources, the management of the

¹⁸ For an overview of further models used for the analysis of business entrepreneurial models, see Guerrero, Rialp, and Urbano (2008).

organisation, relative autonomy in the use of resources and the assumption of risk by all the people involved in the initiation. The event is the dependent variable, the individual is an independent variable, as are the social, economic, political and cultural factors surrounding it. “Each entrepreneurial event is the endpoint of a process and the beginning of another” (Shapero & Sokol, 1982, p. 79). Not everyone perceives an event in the same way – so the psychological differences must be analysed. Shapero and Sokol (1982) argue that individuals have alternate perceptions of the feasibility and desirability of things on which altering perceptions are based. These two elements interact – the negation of one often leading to the subsequent negation of the other. Desirability is driven by one’s values, which are passed on from the social systems surrounding the subject (family, peers, ethnic groups, educational and professional contexts). Shapero and Sokol (1982) see feasibility mostly based on financial capabilities but also name the need for advice, consultation and education. Their model is presented in Figure 9.

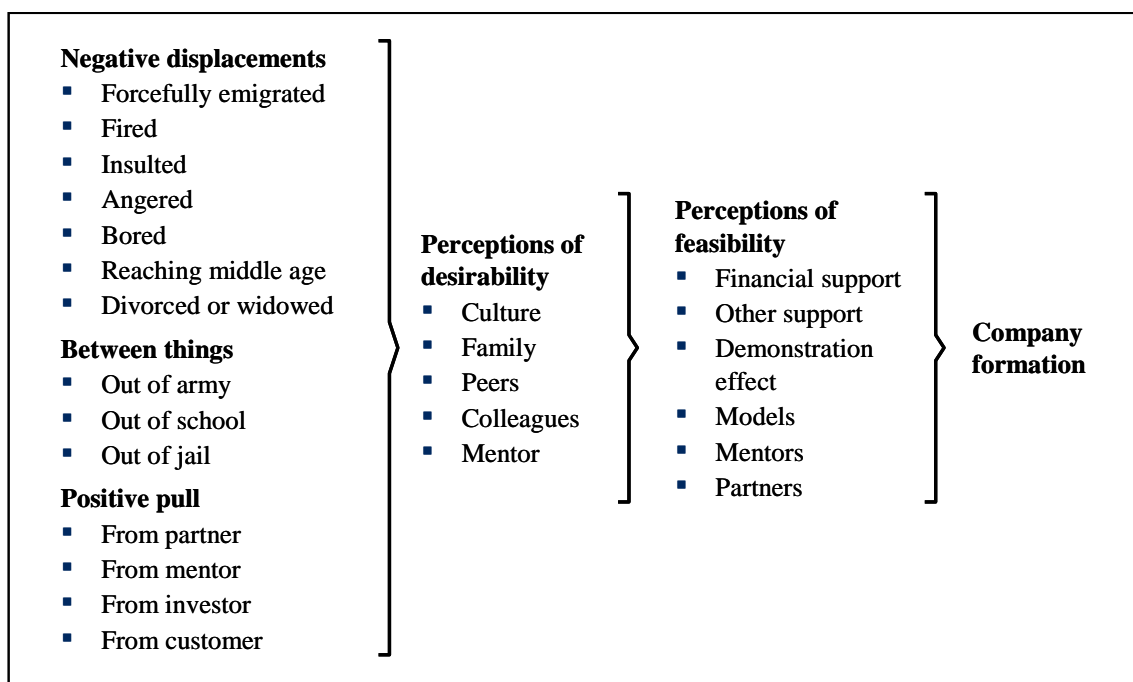


Figure 9: Shapero and Sokol's original model of entrepreneurial event (Shapero & Sokol, 1982)

As the entrepreneurial event leads to a venture foundation, the dependent variable in Shapero’s model can be understood as entrepreneurial intention (Krueger, 1993).

Subsequently, numerous similarities can be found between the model of entrepreneurial event and the TPB. It is also a model used for the analysis of entrepreneurial intention formation. Other than TPB, it considers two rather than three determinants of business entrepreneurial intention – perceived desirability and perceived feasibility, versus ATB, SN and PBC. Yet, the models are more alike than they may seem. On the one hand, perceived feasibility and PBC generally refer to the same construct, the belief of the subject that it is able to undertake and control the target behaviour. On the other hand, perceived desirability is a combination of both ATB and SN (Autio et al., 2001; Guerrero et al., 2008; Krueger & Brazeal, 1994; Liñán et al., 2010). Moreover, Shapero's model can also be adapted and extended, mostly with contextual and personal factors, as is the case with the TPB (Liñán et al., 2010). Even though some studies see minimal differences in the use of the two, in general the models are considered to be “largely homologous” (Krueger et al., 2000, p. 419) in their applicability in the analysis of entrepreneurial intentions. In the realm of this study, TPB is chosen as a theoretical model. While the general advantages of the TPB-model are depicted above, it also has benefits in comparison with Shapero's entrepreneurial event. One advantage is the increased previous utilization of the TPB model, both inside entrepreneurial studies and outside (Krueger et al., 2000; Rise & Ommundsen, 2011). This expands the possible reference cases to compare the results of the study. Additionally, by splitting perceived desirability into the separate factors of ATB and SN, the TPB offers additional information as desirability is viewed in a more differentiated manner (as argued by S. Müller, 2008a). As previously suggested, the model of social entrepreneurial intention formation will, therefore, be based on the TPB.

2.2.4.3.2. Selected previous applications of the theory of planned behaviour in studying entrepreneurial intentions

As detailed in Chapter 2.2.2., core TPB-related studies on business entrepreneurial intentions are portrayed. They offer initial insights into the applicability of intention models in the entrepreneurial studies. Findings can also be used for the development of the model of social entrepreneurial intention formation.

Kolvereid (1996)

In the earliest work on TPB in entrepreneurship research, Kolvereid (1996b) tests the self-employment intentions of 143 undergraduate students in Norway. In his structural equation model, the effects of ATB, PBC and SN on students' intentions are all confirmed, PBC showing the strongest effect. Further extending the TPB-model, he shows that gender (especially males), experience and family entrepreneurs indirectly influence the founding intentions via the attitude-level TPB-constructs of ATB, PBC and SN.

Krueger (1993)

Another early study on intention-based models in business entrepreneurship research was conducted by Krueger (1993). Using answers from 126 upper-division business students at the end of their studies, Krueger tests the applicability of Shapero's model of entrepreneurial event. Results significantly support that both perceived desirability as well as perceived feasibility affect business entrepreneurial intentions. He also adapts the model, showing that prior experience and exposure positively influence both perceived desirability and perceived feasibility.

Krueger, Reilly, and Carsrud (2000)

Krueger, Reilly, and Carsrud (2000) study the effectiveness of TPB in entrepreneurship by comparing it to Shapero's entrepreneurial event. Within TPB, their study with 97 university business students shows significant support for the effects of ATB and PBC on business entrepreneurial intentions, but not concerning SN. PBC has the strongest effect on intentions. While both models offer good results for studying business entrepreneurial intentions, Shapero's model of entrepreneurial event is slightly superior. Especially the applicability of SN in the realm of business entrepreneurial intention models is questioned. This is further discussed in model development in Chapter 3.1.4.

Kolvereid and Isaksen (2006)

Kolvereid and Isaksen (2006) study over 200 Norwegian business founders to test the TRA and TPB in a business entrepreneurial setting. While the strong effects of ATB and SN are confirmed, PBC shows no effect. Hence, they come to the conclusion that the PBC-less TRA is an adequate tool when studying entrepreneurial intentions. These

results are surprising, especially since previous research had shown such strong support for the role of PBC. When examined closely, this study shows numerous differences to previous work on the topic. First, the measure of PBC is not within a single construct, but broken into four subconstructs. Second, subjects are not considering business foundation, but are already business founders, and are asked if they plan to work full time in their business within a year. People at this stage of founding surely have different drivers than those who are prior to taking the step, recognizing an opportunity or developing an idea. In this sense, Ajzen (1988) states that the relative importance of the determinants of intention will vary depending on which stage of intention is under scrutiny. Hence, even though PBC shows no effect in this study, the paper cannot be considered a classical entrepreneurial intention study, as it does not focus on people prior to enterprise formation.

Autio, Keeley, Klofsten, Parker, and Hay (2001)

Autio, Keeley, Klofsten, Parker, and Hay (2001) move the TPB into an international field of business entrepreneurship. They test its applicability in the case of 3,445 university students from Finland, Sweden, and the USA. Data shows, that over all countries, ATB, PBC and SN have a significant positive effect on students' founding intentions, while – again – PBC shows the strongest effect. SN is highly significant, yet weak. In fact, when splitting the data by location, only the students from the University of Stanford in the USA have significant SN values. The direct influence of situational and demographical variables is given, yet also very low. The study confirms the applicability of the TPB in research on business entrepreneurial intentions for various cultural settings. It also brings up the question of the role of SN, as does Krueger, Reilly, and Carsrud's (2000) study.

Liñán and his co-authors (Liñán, 2008; Liñán & Chen, 2007; Liñán & Chen, 2009; Liñán & Javier Santos, 2007; Liñán et al., 2010; Liñán et al., 2008)

Liñán and various co-authors have published several pieces of research on TPB in entrepreneurship in the past years. His overriding goal has been to develop a measurement instrument, the EIQ (Entrepreneurial Intention Questionnaire), to standardize data collection for the analysis of entrepreneurial intentions when using TPB-based models. While testing and advancing the questionnaire, Liñán and co-authors also focus on possible antecedents of the attitude-level TPB-constructs, for example, human

capital (Liñán, 2008), social capital (Liñán, 2008; Liñán & Javier Santos, 2007) or education (Liñán et al., 2010). The tool is also tested in diverse cultural settings from Europe to Asia (Liñán & Chen, 2007; Liñán & Chen, 2009).

Overall, Liñán's studies show the applicability of TPB-based models in the field of business entrepreneurial intention formation. The major adaptation is that he considers SN as an antecedent to ATB and PBC, rather than a direct determinant of entrepreneurial intentions. He also shows broad evidence for further cognitive constructs as antecedents to attitude-level TPB-constructs, such as individual aspects of social and human capital. And, he stresses the relevance of other variables, such as prior experience, or a general entrepreneurial orientation. Overall, Liñán's work aids in formalising the data collection process in the study of business entrepreneurial intentions and confirms TPB as an adequate theoretical basis in various cultural settings. The additional value of his studies is the motivation to look further into cognitive antecedents of the classical attitude-level TPB-constructs and also consider alternate causal relationships between different elements of TPB-based models.

2.2.4.3.3. Criticism on the use of the theory of planned behaviour in studying entrepreneurial intentions

While previous work has shown strong approval for the use of TPB in the realm of entrepreneurial intentions, it must be added that there are critical voices concerning this topic. Fayolle and Degeorge (2006) argue that it is hard to find a situation in which the level of control is predictable, as is necessary for a realistic application of TPB. While this is correct, it is a point of criticism regarding the relationship between intention and actual behaviour, rather than intention formation. When looking at the formation of intentions, the level of control in the future is included within the construct of PBC. Brännback, Krueger, Carsrud, and Elfving (2007) name similar concerns, in that TPB-based intention models represent static images of a motivational state and cannot take into consideration the dynamic processes surrounding firm foundation. Pure cognitive analysis may also overlook important aspects such as the differences between novices and experts. These aspects point at individual flaws in the application of TPB in the study of entrepreneurial intentions, and must be accepted as limitations to the interpretation of

results. Nonetheless, measures can be undertaken to improve data analysis, for example by including a broad range of control variables to identify potential differences between demographically distinct groups. This concern is taken into consideration in measurement preparation.

Overall, the TPB is a suitable theoretical basis for analyzing the formation of social entrepreneurial intentions. Besides enabling a TPB-model specifically for social entrepreneurship, the classical model can be extended and adapted. By identifying potential antecedents to the attitude-level constructs of the TPB-model, this study aims at gaining further insight into both social entrepreneurial intention formation, as well as general information on extended versions of TPB-models. Before developing a model of social entrepreneurial intention formation based on the TPB, current – though limited – insights into *social* entrepreneurial intentions are presented.

2.2.5. Social entrepreneurial intentions

Looking into the formation of social entrepreneurial intentions means answering Ziegler's question of "[...] what preconditions are conducive or even necessary for [people] to act as social entrepreneurs?" (Ziegler, 2009, p. 2). This question has been left unanswered by social entrepreneurship research to date (Krueger & Kickul, 2006). While one may expect such socially oriented behaviour to stem purely from a sense of altruism, various researchers argue against this idea. Mair and Marti (2006) name ethical motives and personal fulfilment, while Durieux and Stebbins (2010) name a total of six possible motives for social entrepreneurship: altruism, community engagement, generosity, compassion/sympathy, leisure, and volunteerism. Faltin (2008) goes as far as to claim that no form of "good" behaviour is based on pure altruism but always has a self-serving motive. Similarly, Mohammed Yunus argues that altruism and egoism should both foster business (in Ott, 2009). So which are the cognitive elements, whether altruistic or not, which form social entrepreneurial intentions?

While the recent study by Tan & Yoo (2011) analyzes organizational social entrepreneurial intention formation, three previous studies have embarked on the study of individual-based social entrepreneurial intentions, which are of relevance for this thesis. **Krueger, Kickul, Gundrey, Verman, and Wilson (2009)** aim to look at social venture

intentions, yet do so by testing the general motivations of students to become general entrepreneurs, analysing which aspects are most important to them. They find that environmentally sustainable aspects are of the highest priority, followed by fast venture growth. While this empirical study shows that socially oriented aspects are generally important when considering venture opportunities, it does not reveal more insight into the processes leading to the formation of social entrepreneurial intentions.

In a second study, **Nga and Shamuganathan (2010)** aim to study the links between personality traits and social entrepreneurial intentions. Based on the ideal, that personality factors strongly affect entrepreneurial intentions, they study the Big Five personality factors. Surprisingly, they do not analyse the causal link to social entrepreneurial intentions, but to social vision, sustainability, social networks, innovation and financial returns. While this empirical study can confirm various aspects of these relationships, it cannot prove specific effects on social entrepreneurial intentions, as these are not surveyed.

Finally, in a theoretical approach, **Mair and Noboa (2006)** develop a first intention model for social entrepreneurship. Although their literature review shows that the effect of and interaction between situational and personal factors are central to intention formation in entrepreneurship, they choose to focus on the individual level in their research. Based on insights from organisational behaviour, they include dynamic, malleable personal variables. The resulting model can be seen in Figure 10.

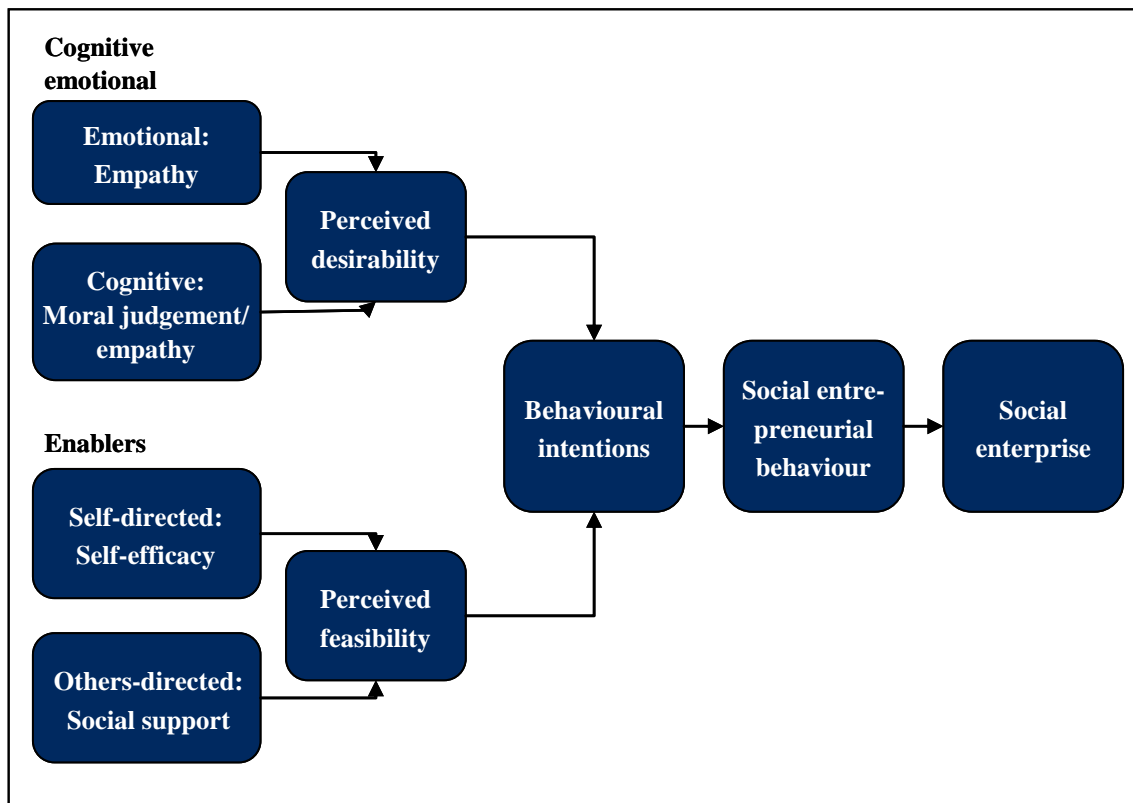


Figure 10: Mair and Noboa's (2006) model of social entrepreneurial intentions

Mair and Noboa's model is not meant as an all-encompassing model fully explaining intentions, but as a concentrated one, focusing on specific variables to show potential differences between business and social entrepreneurship. Based on the TPB and Shapero's entrepreneurial event, they show that – as in business entrepreneurship – social entrepreneurial intentions are shaped by the perceived desirability (or the attractiveness) of forming a social enterprise and the perceived feasibility (or the capability) of forming a social enterprise. Besides adapting these classical models to the social entrepreneurial realm, Mair and Noboa extend the model, suggesting antecedents of perceived desirability and perceived feasibility. They consider that the factors of self-directed self-efficacy and others directed social support (i.e., social networks) facilitate social entrepreneurship and, therefore, positively influence perceived feasibility of founding a social venture. They also assume that perceived desirability is affected by attitudes, specifically empathy on an emotional level, and moral judgment and empathy on a

cognitive level. This model takes a big step towards constructing a social entrepreneurial intention model, based on previously tested models from business entrepreneurship research. It has not been empirically validated to date. This thesis takes the idea behind this model as a source of inspiration. It adopts the concept of social entrepreneurial intention. While it also transfers antecedents reflecting the desire to become a social entrepreneur and the belief that this is feasible, this study develops a further specified model. It is based on the TPB and focuses on the target behaviour of “becoming a social entrepreneur”. All constructs are adapted to this target behaviour. This study of social entrepreneurial intention formation is the first study of the field using the TPB empirically. Therefore, no constructs are added on an attitude-level to maintain comparability with previous studies, e.g., from the area of business entrepreneurship. Yet, to gain additional insights into intention formation, the model is extended by potential antecedents of the attitude-level TPB-constructs. Numerous possible factors are taken into consideration, as Shapero and Sokol (1982) already recognized that only diverse factors can possibly outline the intention formation process. Additionally, the causal relationships within the model are adapted if necessary to reflect the theoretically suggested interactions between the constructs. Overall, an extensive array of potential antecedents is discussed, whose effects are hypothesized and shall be validated empirically. This model of social entrepreneurial intention formation is developed in the following chapter.

3. Development of a theory-based model of social entrepreneurial intention formation

In this chapter, the model of social entrepreneurial intention formation is developed. It includes selected constructs relevant for intention formation as well as the causal links between them. Model development is conducted by phrasing clear hypotheses, stating which constructs effect social entrepreneurial intention formation and how. As Walter (2008) suggests, elaborate models can be used to unite and relate perspectives of different theories by establishing different elements of the model on different fields of research. As discussed, the core of this model is based on the TPB. Hence, first, the classical constructs of the TPB are adapted to the target behaviour of becoming a social entrepreneur. Then, the causal relationships between these constructs are analysed. Based on the identified causal links, hypotheses on the effects between the constructs are formulated. In a next step, potential antecedents of the attitude-level TPB-constructs of the model are identified. These are developed by assessing insights from business entrepreneurship and related fields of research. The causal links between these new determinants and the attitude-level TPB-constructs are formulated in the form of further hypotheses. Then, individual control variables are suggested. Finally, the model developed of social entrepreneurial intention formation is presented.

3.1. The classical model of the theory of planned behaviour adapted to social entrepreneurial intention formation

As discussed in Chapter 2.2.4., the TPB offers a promising framework to analyse the formation of social entrepreneurial intentions. The classical constructs of intentions, ATB, PBC and SN must be adapted to the target behaviour in question, in this case “becoming a social entrepreneur”. In the following paragraphs, the constructs are discussed and modified accordingly. Additionally, hypotheses are created regarding the causal relationships between one another.

3.1.1. Social entrepreneurial intentions

As the aspect of social and business entrepreneurial intentions were largely discussed in Chapter 2.2., this paragraph will only briefly outline the construct of social entrepreneurial intention within the model. As elaborated on, there is no unified definition of entrepreneurial intentions (E. R. Thompson, 2009) and currently no definition of social entrepreneurial intention. Based on the identified target behaviour and still leaning on Thompson (2009), the construct of *social entrepreneurial intentions* (Int-SE) is understood as a self-acknowledged conviction by a person that they intend to become a social entrepreneur and consciously plan to do so at some point in the future (p. 676). This construct is the ultimate dependent variable in the model on social entrepreneurial intention formation.

3.1.2. Attitude towards becoming a social entrepreneur

The most veteran antecedent of intention within the TPB is the attitude towards behaviour (ATB). Ajzen and Fishbein (1980) define it as “[...] the person’s judgment that performing the behaviour is good or bad, that he is in favor of or against performing the behaviour” (p. 6). Later, Ajzen moves away from the bipolar evaluation between good or bad and defines it as “[...] the individual’s positive or negative evaluation of performing the particular behaviour of interest” (Ajzen, 1988, p. 117). As Ajzen (1988) clarifies, attitudes are different from traits due to their evaluative character towards a specific target. Every attitude has an object (P. B. Robinson, Stimpson, Huefner, & Hunt, 1991) and the attitude only exists in connection with this object (Ajzen, 2001) – within the TPB this object is the target behaviour. As discussed, Ajzen envisioned ATB as split between the evaluation of each potential outcome of the target behaviour and the perceived probability of each outcome occurring. Today, ATB is considered as an aggregated evaluation of the target behaviour, collapsing the two aspects into one (Ruhle et al., 2010), quite in line with Ajzen’s 1988 definition. This recent concept sees ATB as the personally perceived attractiveness of the target behaviour (Autio et al., 2001). This level of attractiveness is made up in an emotional, affective, or in a rational, evaluative manner (Crites, Fabrigar, & Petty, 1994; Volkmann & Grünhagen, 2010) – both paths shape the

overall judgment. Dutton & Jackson (1987) describe how such cognitive categorization of objects or events occurs whether it be a rational decision or an affective one. Yet, this differentiation is not relevant in the realm of this study, as only the final product of a more or less favourable evaluation is important to study its effect on intention formation.

ATB has shown high levels of influence on business entrepreneurial intentions in numerous studies (e.g., Autio et al., 2001; Kolvereid, 1996b). Often, it is the strongest or second strongest effect besides PBC. Within the realm of business entrepreneurship, Liñán and Chen (2009) describe ATB as “[...] the degree to which the individual holds a positive or negative personal valuation about being an entrepreneur” (p. 596). In line with this definition, this study understands the *attitude towards becoming a social entrepreneur* (ATB-SE) as the degree to which the individual holds a positive or negative personal valuation about becoming a social entrepreneur. The classical TPB, as well as all subsequent studies of ATB assume a positive effect of ATB on intentions. Likewise, it is to be expected that the more attractive becoming a social entrepreneur is to a subject, the higher the respective intentions become. Therefore, the hypothesis is:

***Hypothesis 0.1.:** Attitude towards becoming a social entrepreneur has a positive effect on social entrepreneurial intentions*

3.1.3. Perceived behavioural control on becoming a social entrepreneur

Concerning its definition and interpretation, PBC is the most difficult of the attitude-level TPB-constructs. Ajzen states that PBC “refers to the perceived ease or difficulty of performing the behaviour” (Ajzen, 1988, p. 132). This definition will guide the further line of thought on the topic in this thesis. By adding PBC, the TRA turns into the TPB, enabling researchers to model situations of low volitional control (Kim & Hunter, 1993a). In this sense, PBC can be seen as an indicator for actual levels of control (Ajzen, 1991; Armitage & Conner, 2001). Like this, internal and external potential barriers are taken into consideration for intention formation, besides the personal motivation to realize the target behaviour, which is reflected by ATB and SN (Lüthje & Franke, 2003). Hence, PBC encompasses the evaluation of the “doability” of the target action. Here, again, the reason for the evaluation, whether internally or externally caused, and based on perceived

barriers or enablers, is not of prime importance for the establishment of a PBC construct within the model of social entrepreneurial intention formation. With this in mind, related constructs will shortly be presented.

Ajzen himself deals with differentiation issues of PBC (Ajzen, 1991). He argues that other than Rotter's 'locus of control', PBC varies across situations; other than Atkinson's 'perceived probability of succeeding', it encompasses more than a singular, predefined task; and other than Bandura's self-efficacy (Bandura, 1995, 1997, 2006), it includes more than a perception of one's abilities. Especially the differentiation between PBC and self-efficacy has been discussed by numerous other researchers and no final conclusion has been obtained. While Krueger and Carsrud (1993), for example, consider the concepts to map nicely, Verzat and Bachelet (2006) and Ajzen (2002a) see self-efficacy as a sub-construct of PBC. This study does not consider PBC and self-efficacy to be equal. It sees self-efficacy as task-specific (Krueger & Dickson, 1994), and PBC as a more comprehensive concept. It adapts Ajzen's original understanding, regarding PBC as an *overall* perception of the degree of ease with which a certain behaviour can be realized, including various tasks necessary on the way. This is also more in line with Shapero and Sokol's (1982) concept of perceived feasibility, which is used in comparable studies.

Entrepreneurship research was slow to adopt concepts of feasibility (Boyd & Vozikis, 1994). A number of studies individually review the effect of PBC-related aspects on entrepreneurial ambition or success (e.g., Chandler & Jansen, 1992; Gatewood, Shaver, Powers, & Gartner, 2002), but only with the proliferation of the TPB, did the concept fully enter entrepreneurship research. Here, as shown in Chapter 2.2.4.3.2., PBC has shown a very strong influence on business entrepreneurial intentions. Within one of these studies, Liñán and Chen (2009) define PBC as "the perception of the ease or difficulty of becoming an entrepreneur" (p. 596). In line with this definition, this study understands *perceived behavioural control on becoming a social entrepreneur* (PBC-SE) as the perception of the ease or difficulty of becoming a social entrepreneur. The classical TPB, as well as all subsequent studies of PBC, assume a positive effect of PBC on intentions. Mair and Noboa's (2006) model on social entrepreneurial founding intentions also considered perceived feasibility as a core construct. Therefore, the hypothesis is:

Hypothesis 0.2.: Perceived behavioural control on becoming a social entrepreneur has a positive effect on social entrepreneurial intentions

3.1.4. Subjective norms on becoming a social entrepreneur

Ajzen describes SN as “[...] the person’s perception of social pressure to perform or not to perform the behaviour under consideration.” (Ajzen, 1988, p. 117, similar in Ajzen & Fishbein 1980). While researchers are in agreement over the element of social pressure, they are not aligned concerning where the pressure comes from. Some studies consider the general society to be the point of reference for the subject. In this sense, Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010) state that SN describe “the perceived image of entrepreneurship within the society” (p. 20). This rather describes the concept of social norms (Volkman & Grünhagen, 2010) than this study’s concept of SN. In the understanding of this study, SN are passed on by the subject’s immediate social surrounding. It is described in this sense by Rivis and Sheeran (2003), as “pressure that people perceive from important others to perform, or not to perform, a behaviour” (p. 218). Again, researchers differentiate between different types of this attitude-level TPB-construct. Ajzen (2002b) observes two types of SN: the injunctive type, which reflects the approval of one’s social surrounding, and the descriptive type, concerning the level of target behaviour the social surrounding engages in itself. While this may be an interesting aspect for measurement and interpretation, the fact that the sources of SN differ are of no relevance for the effect of the construct of subjective norms towards becoming a social entrepreneur.

SN are the attitude-level TPB-construct with the weakest effect on intentions in studies to date (e.g., Krueger et al., 2000; Liñán & Chen, 2007). This is caused both by changing understanding of the concept, as well as poor measurement. Armitage and Conner (2001) call for the use of more elaborate scales, away from single-item measurements. Krueger and Carsrud (1993) explain that it is crucial to identify the “important people” who can exercise social pressure on the subject. Autio, Keeley, Klofsten, Parker, and Hay (2001) believe low values may be due to the study of subjects with high levels of autonomy and action orientation. Besides, numerous studies have shown significant SN effects of

intentions (e.g., Broadhead-Fearn & White, 2006; Cordano & Frieze, 2000; Greenslade & White, 2005; Hrubes et al., 2001).

Specifically for the realm of business entrepreneurship, Liñán and Chen (2009) define SN as “the perceived social pressure to carry out – or not to carry out – entrepreneurial behaviours” (p. 596). They add that this perception depends on whether ‘reference people’ approve of the decision to become an entrepreneur, or not. In line with this definition, this study understands *subjective norms on becoming a social entrepreneur* (SN-SE) as the perception that the close social surrounding would approve of the subject becoming an entrepreneur. Researchers in this area have been especially critical concerning the construct of SN – unsurprisingly, based on the weak results that core work on business entrepreneurial intentions shows (see Chapter 2.2.4.3.2.). Liñán and his co-authors go as far as to postulate SN as an antecedent to ATB and PBC, rather than a direct influence on business entrepreneurial intentions (e.g., Liñán & Chen, 2007), a procedure also supported by Sagiri and Appolloni (2009). Moreover, numerous authors have also identified potential flaws in measurement which may have led to these weak results. It is also plausible that pressure from the closest social network to become a social entrepreneur would increase the intention to realize this action. Therefore, SN-SE are considered as direct influences on social entrepreneurial intentions in the model of social entrepreneurial intention formation.

***Hypothesis 0.3.:** Subjective norms on becoming a social entrepreneur have a positive effect on social entrepreneurial intentions*

3.1.5. Relationships between attitude-level theory of planned behaviour-constructs

As discussed in Chapter 2.2.4.2., causal links within the TPB can be adapted. Until now, the recommendations of the classical model of TPB have been followed. Additionally, this study models new causal relationships.

Studies occasionally suggest interactions between the attitude-level TPB-constructs. Liñán and his co-authors, for example, see SN having an effect on ATB and PBC (e.g., Liñán & Chen, 2007). Autio, Keeley, Klofsten, Parker, and Hay (2001) also successfully test effects of SN and ATB on PBC. This goes in line with original graphics of the TPB

(Ajzen, 1991), which show potential interaction effects between the attitude-level TPB-constructs, but which are seldom followed up upon.

In the model of social entrepreneurial intention formation, potential effects from SN and PBC on ATB are considered. Links between SN and ATB are successfully tested in various studies on business entrepreneurial intention formation. The feeling of social pressure can certainly change personal perceptions (J. Martin, 2004), so that it is plausible for social entrepreneurship to become more attractive for beholders urged to move into that area. Several researchers make initial remarks about potential effects of PBC on ATB in business entrepreneurship. Scherer, Brodzinski, and Wiebe's (1991) study shows effects of self-efficacy on preferences for self-employment. Boyd and Vozikis (1994) model also envisions such a connection. An underlying assumption could be that given a certain confidence that they could easily become a social entrepreneur, subjects feel better about undertaking the actions necessary to do so and subsequently find them more attractive (in line with Liñán, 2008). Therefore, both SN-SE and PBC-SE are mapped as direct influences on ATB-SE in the model of social entrepreneurial intention formation.

***Hypothesis 0.4.:** Subjective norms on becoming a social entrepreneur have a positive effect on attitude towards becoming a social entrepreneur.*

***Hypothesis 0.5.:** Perceived behavioural control on becoming a social entrepreneur has a positive effect on attitude towards becoming a social entrepreneur.*

The hypothesized causal relationships and adapted constructs are shown in Figure 11.

3.1. The classical model of the theory of planned behaviour adapted to social entrepreneurial intention formation

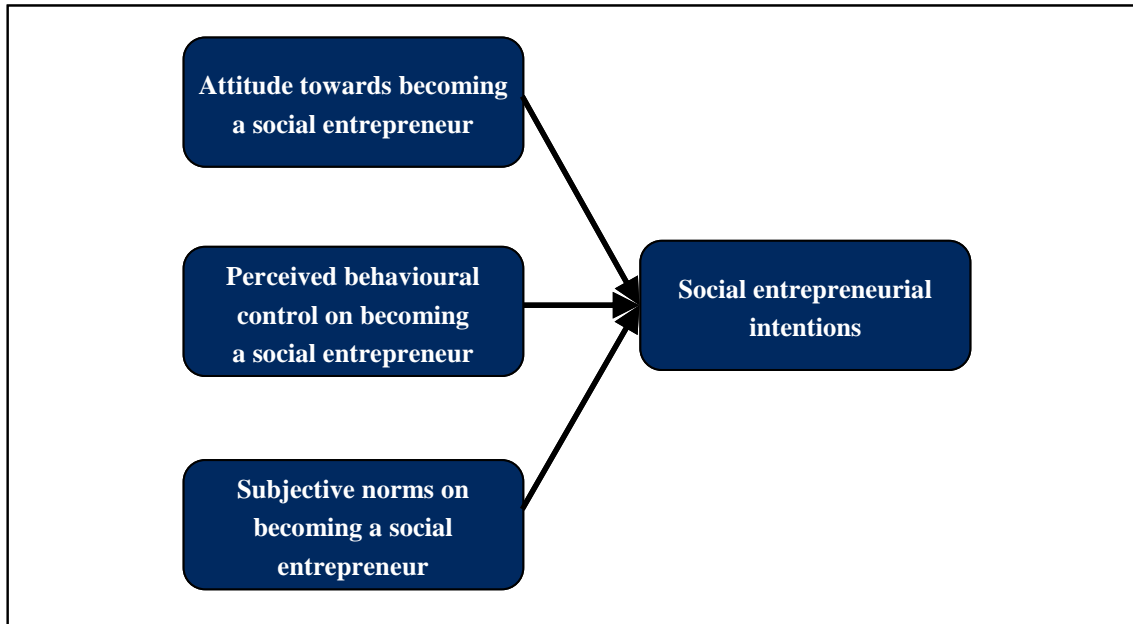


Figure 11: The classical model of the theory of planned behaviour adapted to the target behaviour of becoming a social entrepreneur

3.2. Extension of the classical model of the theory of planned behaviour for the model of social entrepreneurial intention formation

To gain deeper insight into the formation of social entrepreneurial intentions, the TPB model is further specified. The focus here is possible antecedents of the attitude-level TPB-constructs of ATB-SE, PBC-SE and SN-SE. Understanding these helps recognize more tangible areas through which intentions can be fostered. Further specifying and detailing the factors effecting social entrepreneurial intention formation will offer clear starting-points for the creation of activities to foster social entrepreneurship.

In identifying relevant antecedents for the model of social entrepreneurial intentions, three things were taken into consideration. These criteria are similar to the process described by Mair and Noboa (2006) which is the basis of this model:

- The model of social entrepreneurial intention formation – as all models – is supposed to reduce complexity. Therefore, it should focus on core aspects with no pretence to fully map the complex creation of social entrepreneurial intentions. This is in line with Krueger and Carsrud (1993) who call for researchers to only include those variables which plausibly influence the attitude-level TPB-constructs.
- To further specify the research, this study chooses to focus on individual-level differences which may affect intention formation. This means excluding general and environmental factors which affect all subjects.¹⁹ This is in line with the individual-opportunity nexus which argues that the choice to act upon opportunities depends largely on individual differences of the people seeing this opportunity (Shane et al., 2003). Shane, Locke and Collins (2003) state that holding environmental factors constant, human motivation will play a vital role in who becomes an entrepreneur.

¹⁹ Desirability and feasibility are built on personal and contextual factors (Dimov, 2007b, who cites Bird, 1988). Many studies also underline the relevance of the environment (Bloom & Dees, 2008; Fayolle & Degeorge, 2006; Franke & Lüthje, 2004; Goethner et al., 2009; Lüthje & Franke, 2003; Minniti & Bygrave, 1999; Naffziger et al., 1994; Volkmann & Grünhagen, 2010). Also, some specific studies from social entrepreneurship research name the relevance of environment (Austin, 2006; Jacobs, 2006; Mair et al., 2007).

- Antecedents are included in the model when they were expected to have a strong influence on ATB-SE, PBC-SE or SN-SE, hoping to explain as much of the intention formation process as possible. Relevance was indicated based on frequent occurrence in social entrepreneurial research and/or specifically suggested links to social entrepreneurial intentions, a process similar to that applied by Mair and Noboa (2006) in the development of their model. Some antecedents also had prominent roles in studies on business entrepreneurial intentions.

Identification of relevant antecedents matching the criteria above is done based on literature review. First, social entrepreneurship findings are taken into consideration. As suggested previously, the largest number of studies was anecdotal, and not empirical, and certainly not quantitative. Therefore, in addition, studies on entrepreneurial intentions are assessed to learn from previous findings in this related field. Being a form of entrepreneurship, various elements in social entrepreneurship research are inspired by previous business entrepreneurship studies. In developing the model, inspiration is acquired from related business entrepreneurship studies. Yet, at the same time and very importantly, social entrepreneurship specifics are sought out, and new emphases are set. Finally, specific alternate fields of studies are included when necessary. As a result, three branches are chosen to extend the model of social entrepreneurial intention formation:

- **Social entrepreneurial personality**
- **Social entrepreneurial human capital**
- **Social entrepreneurial social capital**

Figure 12 shows the position of the selected antecedents in the model of social entrepreneurial intention formation. The specific causal links are developed while discussing each antecedent.

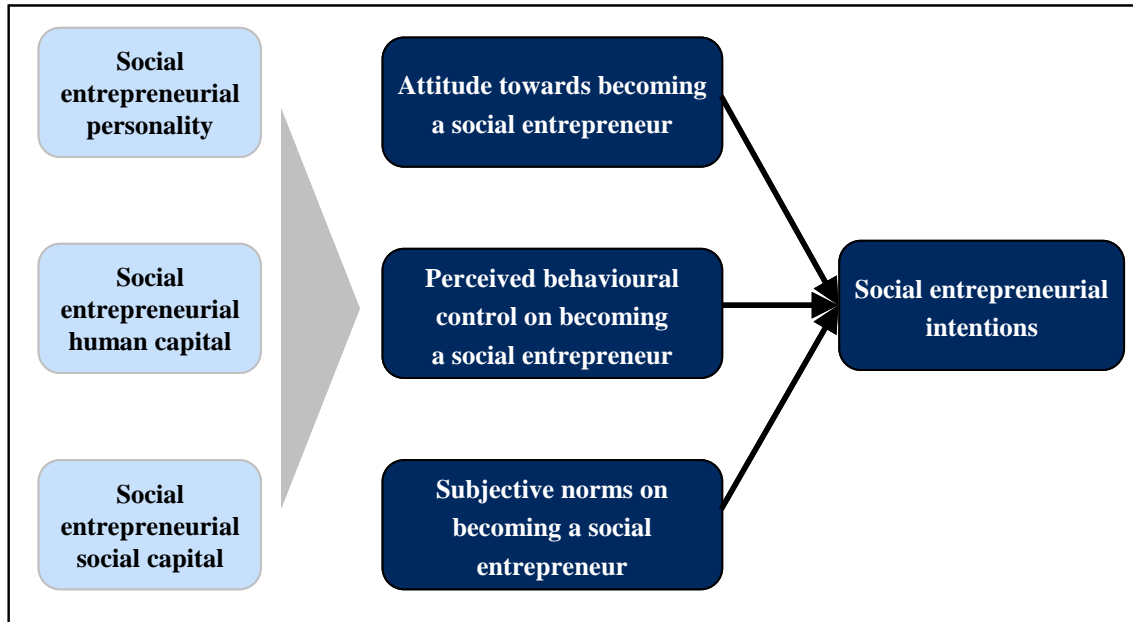


Figure 12: Positioning of antecedents in the model of social entrepreneurial intention formation

The relevance and motivation for each extension is explained as the model is extended throughout the following chapters.

3.2.1. Social entrepreneurial personality

Following the criteria above, social entrepreneurial personality is included as an antecedent to the attitude-level TPB-constructs, as it is a frequently occurring factor in social entrepreneurship research to date. Additionally, entrepreneurial personality has been a factor of much discussion and insight in the field of entrepreneurship research – with studies underlining the relationships between character traits and entrepreneurial intentions. These are the reasons for the inclusion of social entrepreneurial personality as an antecedent in the model of social entrepreneurial intentions.

3.2.1.1. The motivation behind including social entrepreneurial personality

In a first step, the understanding of social entrepreneurial personality within this study is developed. Additionally, its relevance in social entrepreneurship research reflects its important role.

3.2.1.1.1. Understanding of social entrepreneurial personality

Academic research on personality started as a part of philosophy and was later included as ultimate goal of educational science, before the independent field of personality psychology appeared (Braukmann, Bijedic, & Schneider, 2008). Here, different definitions of the term were developed, based on the different underlying personality theories, one of which was the traits school (Braukmann et al., 2008; Herrmann, 1991). The traits school argues that certain behaviour is not solely based on learned reactions but on stable traits of the acting individual. These traits form dispositions to act a certain way and can be understood as propensities to act (Rauch & Frese, 2007). Together, they make up a personality, as studies by Gordon Allport as early as the 1920s show (Barkhuus & Csank, 1999). In this sense, Herrmann (1991) describes personality as “for each person a unique, relatively stable behavioural correlate which endures over time” (p. 29).²⁰ Based on this line of thought, the traits which make up a personality influence action and, hence, affect entrepreneurial behaviour as a form of action (Fallgatter, 2002). As shown in Chapter 2.2.2.1., intentions precede behaviour.

This study understands *social entrepreneurial personality* as a combination of stable traits common to social entrepreneurs, uncommon within the rest of the population, which cause them to act the way they do.

²⁰ Translated from German, taken from Braukmann, Bijedic, and Schneider (2008).

3.2.1.1.2. The relevance of personality in social entrepreneurial research to date

A large part of social entrepreneurship research to date deals with the overarching category of the ‘social entrepreneur’ and their personality (Light, 2009; Shaw & Carter, 2005). This ranges from anecdotal tales about social entrepreneurs, telling of their extraordinary character (e.g., Bornstein, 2004; Elkington & Hartigan, 2008; Frances, 2008), to seemingly random lists of attributes within related scientific texts (e.g., Leadbeater, 1997; R. L. Martin & Osberg, 2007; Nicholls, 2006a), to studies specifically dedicated to gaining further insight on the relevant traits of social entrepreneurs (e.g., Barendsen & Gardner, 2004; Winkler, 2008). Overall, research underlines that their personality is something special and unseen in other areas.

Some authors criticize the ‘cult’ towards social entrepreneurs’ personality in social entrepreneurship research (e.g., Light, 2006). As explained in Chapter 2.1.4.1.1., researchers have found disapproval of this point of view within practicing organisations (Seanor & Meaton, 2007; Spear, 2006). Nonetheless, its central role in research is apparent. As Bill Drayton said when asked to define a social entrepreneur: “The core is personality [...]” (Meehan, 2004, p. 11). His organisation, Ashoka, in fact believes that if you want to know if an idea is successful, you must focus on the person behind it (Bornstein & Davis, 2010).

3.2.1.2. Personality in business entrepreneurship research

Entrepreneurial personality is an aspect common in business entrepreneurship research, and its relevance has been discussed with even more vigour than that of personality in social entrepreneurship (Becherer & Maurer, 1999; Dreesbach, 2010; Frank, Lueger, & Korunka, 2007). Already the early entrepreneurship studies focused on the person of the entrepreneur and character traits (Kirzner, 1985; Schumpeter, 1936). This trend continued and contributed to what is known as the traits approach of entrepreneurship, based on the traits school of personality (Gartner, 1989). This line of thought puts personality at the core of business entrepreneurship (Cromie, 2000). The traits approach largely dominated the field of entrepreneurship research (Scherer, Brodzinski, & Wiebe, 1990). As research progressed, it became apparent that many studies on the topic only showed weak

connections between personality and entrepreneurship (e.g., Ajzen, 1991; Brockhaus, 1980), as discussed in Chapter 2.2.2.1.²¹ Finally, some researchers proclaimed the traits approach to be dead (e.g., Carsrud & Johnson, 1989; Gartner, 1989; Low & MacMillan, 1988; P. B. Robinson et al., 1991). Research subsequently moved away from the person of the entrepreneur, and towards the process of opportunity recognition or the environmental and situational factors in entrepreneurship (e.g., Bönnte & Jarosch, 2010; Chandler et al., 2003; Sarason, Dean, & Dillard, 2006; Shane, 2003; Shane & Venkataraman, 2000). Nonetheless, some researchers continued to show enthusiasm for the role of personality in entrepreneurship research (e.g., Caird, 1991; Carland et al., 1988; B. R. Johnson, 1990), and, in past years, research has shown that there are, in fact, links between personality and entrepreneurship (especially in the following meta-analyses: Collins, Hanges, & Locke, 2004; Rauch & Frese, 2007; Stewart & Roth, 2001; Zhao & Seibert, 2006). These recent studies come to the conclusion that previous inconsistent findings on the effect of personality on entrepreneurship were due to unclear definitions or measurement mistakes, or an incorrect selection of traits included in research (Cromie, 2000; B. R. Johnson, 1990). Based on these findings, they argue the person of the entrepreneur back into the field, then as Shane, Locke, and Collins (2003) put it “[...] inadequate empirical work does not negate the importance of understanding the role of human motivation in the entrepreneurial process” (p. 258). Similar comments can be heard across the field: “[...] People are different and these differences matter” (Venkataraman, 1997, p. 123), “Individuals are, after all, the energizers of the entrepreneurial process” (B. R. Johnson, 1990, p. 48), “[Many things besides the personality are important, yet] none of these will, alone, create a new venture. For that we need a person [...]” (Shaver & Scott, 1991, p. 39). These perceptions are supported by the idea that personality plays a significant role when situations are complex and uncertain, as is the case in entrepreneurship, especially in its initial stages (Dreesbach, 2010; Frank et al., 2007; Gatewood, Shaver, & Gartner, 1995).

Consequently, the personality of the entrepreneur has been increasingly included in recent studies (e.g., Frank et al., 2007; Shane et al., 2003). What has changed is that the

²¹ Brockhaus (1980) shows no links between risk and entrepreneurship. Ajzen (1991) recognizes that direct links between traits and any behaviour have generally shown weak results.

role of personality is looked at in a more differentiated manner. On the one hand, the field has gone from looking at what entrepreneurs are like to what aspects of personality motivate entrepreneurs. On the other hand, it has also been discussed if personality has no direct but a profound indirect effect on entrepreneurship. Baum and Locke (2004), for example, found that traits indeed had an effect on enterprise growth, but through antecedents such as goals or self-efficacy. Additionally, the assumption is no longer that these portrayed traits are necessary or sufficient for entrepreneurial activity. Rather, they can be seen as facilitators of entrepreneurial activity, as the expected utility of being self-employed is higher for people who have the characteristics necessary when starting an enterprise (Bönte & Jarosch, 2010). At the same time, it must be mentioned that some skeptical voices are still to be heard (e.g., Autio et al., 2001; Sarasvathy, 2004), although they rather caution research to be more vigorous in the area than completely annihilate the important role of personality. In conclusion, personality is back on the map in entrepreneurship research.

It can be added, that the role of personality has shown specific relevance in research on entrepreneurial intentions. As previously mentioned, indirect effects are the core of many current reflections on the relationship between personality and entrepreneurial behaviour, numerous researchers calling for the analyses of moderators between the two (e.g., Rauch & Frese, 2007; Zhao & Seibert, 2006). This is in line with the findings of Ajzen (1991) who showed that traits do not influence behaviour directly but through related factors. While some see motivation as the fitting link (Naffziger et al., 1994; Shane et al., 2003), others proclaim entrepreneurial intentions as the moderator to bridge the gap between personality and entrepreneurial behaviour (Bird, 1988; Rauch & Frese, 2007). Here, individual studies have observed links between personality traits and business entrepreneurial intentions (Frank et al., 2007). For example, Teixeira and Forte (2009) show that psychological attributes directly influence founding intentions. Walter and Walter (2008) have more diverse results, as they can only confirm the direct link between selected personality traits and students' business entrepreneurial intentions for male, yet not for female students. Franke and Lüthje (2004) also show existing, but weak direct links between individual traits and business entrepreneurial intentions. Going a step further, researchers state that the relationship between personality and entrepreneurial

intentions is not direct but again moderated, for example, by attitudes, or perceptions of feasibility and desirability (e.g., Krueger et al., 2000). In a first study, Lüthje and Frank (2003) confirm that specific traits affect the attitude to business entrepreneurship. This underlines personality as a fitting antecedent to attitude-level TPB-constructs in the model of social entrepreneurial intention formation. The different perspectives on the possible links between personality and entrepreneurial behaviour are shown in Figure 13.

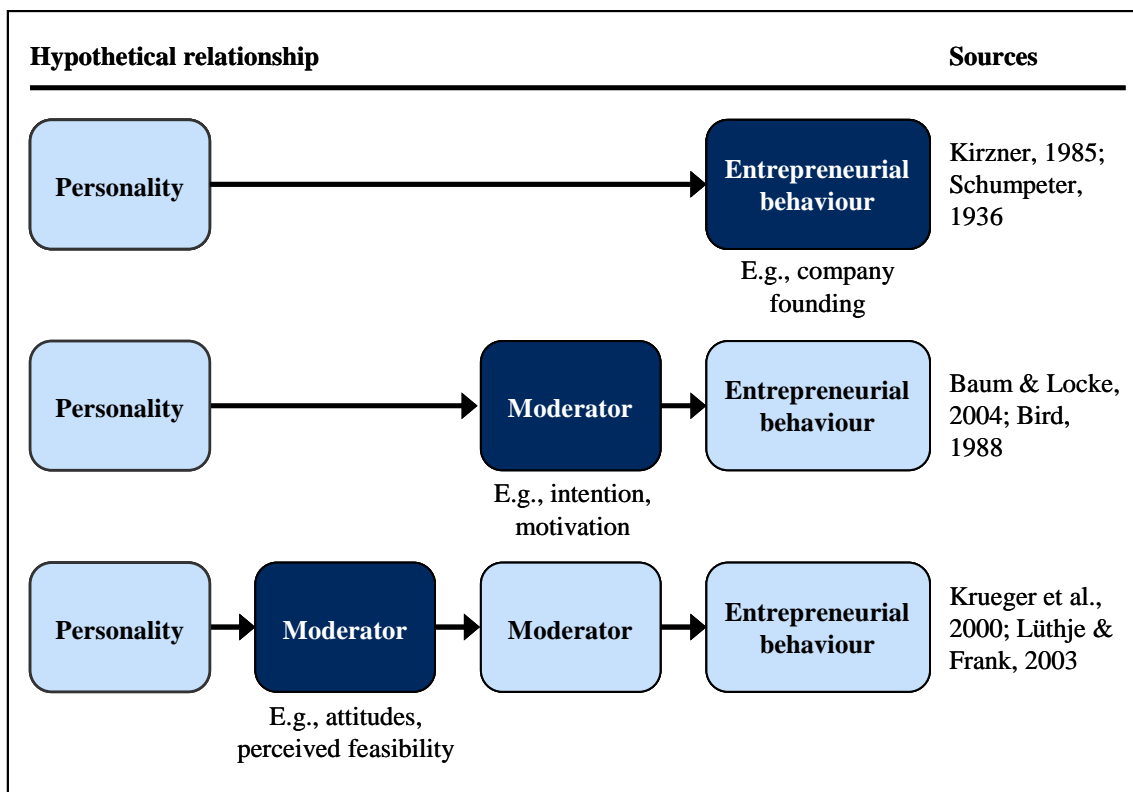


Figure 13: Alternative suggestions on links between personality and entrepreneurial behaviour

3.2.1.3. Personality in social entrepreneurship research

As mentioned above, there is a large spread of findings of varying quality concerning the social entrepreneurial personality. As described, the majority of texts mentioning traits offer them as a seemingly random list of attributes. To find contributions to the model in this study, those focusing specifically on the personality or traits of social entrepreneurs are of interest. Here, besides numerous theoretical excursions on the topic (e.g., J.

Thompson et al., 2000; Winkler, 2008), learnings for a study of social entrepreneurial personality can be derived primarily from previous empirical studies in the area. Due to the young age of the field of research, the number of empirical studies is small. They are shortly reviewed in the following paragraphs.

Leadbeater (1997)

Leadbeater (1997) made his study on social entrepreneurs for UK public policy, aiming to find out how they could promote social entrepreneurship. The study consists of seven case studies with different social entrepreneurs. Concerning the personality of the social entrepreneur, Leadbeater comes to the conclusion that they are exceptional people who need special skills to be able to create ventures purely built on social capital. He describes them by using three adjectives: entrepreneurial, innovative and transformatory. This study, therefore, offers no complete insight into what can be understood as a social entrepreneurial personality.

Barendsen and Gardner (2004)

Barendsen and Gardner (2004) study a number of social entrepreneurs and compare them to both business entrepreneurs and young service professionals. They review their backgrounds, challenges, beliefs and personality. Concerning personality they come to the conclusion that social entrepreneurs are similar to service professionals in that they feel like ‘outsiders’, while their action of choosing an untraditional career path is closer to that of business entrepreneurs. They also attribute traits such as energetic, persistent, and independent to the social entrepreneurs they studied. While the general findings of the study are interesting for the development of a social entrepreneurial personality, the study does not intend to offer a complete picture of what traits such a construct is made up of.

Vasakarla (2008)

Vasakarla (2008) embarks on his work on the characteristics of social entrepreneurs by questioning 75 social entrepreneurs from 60 organisations in India. The questionnaire given to them contain 13 diverse traits which social entrepreneurs are expected to possess, ranging from “Should be independent” to “Should be an optimist”. Respondents are asked to state the relevance of the individual traits for social entrepreneurship. The

items with the highest average scores are “Should give high importance to ethics”, “Should be a high risk taker” and “Should be innovative”. Vasakarla comes to the conclusion that while many desired traits are similar to those expected from any kind of entrepreneurs, the work of a social entrepreneur specifically starts as an emotional response to social problems. While the opinion of social entrepreneurs on relevant traits is worthy of note, the study of these recommendations cannot show which are, in fact, the relevant aspects of a social entrepreneurial personality.

Light (2005, 2006, 2009, 2011)

Paul C. Light has dedicated his research to a better understanding of the phenomena of social entrepreneurship throughout various years. Starting with his work in 2005, he criticized the personality cult surrounding social entrepreneurs, calling for a broader understanding of what can be associated with this field. For example, he did not agree with the frequent assumption that social entrepreneurs are a “rare breed” (p. 24) of people. He further underlined this perspective in 2006 and, concerning personality, specifically added that in his point of view previous work had shown no signs of relevance concerning traits, rather indicating that teachable skills may be of relevance. In 2009, he slightly corrected and differentiated this statement. He explained that the source of his initial scepticism concerning social entrepreneurs’ personalities were caused by low sample sizes used to acquire the results and the focus on heroic story-telling of successfully founded social enterprises. He rectified some of the conclusions made in 2005, many of them concerning the social entrepreneur. He concluded that contrary to his expectations, social entrepreneurs rarely rest, think differently from high achievers, persevere against all odds, take greater risks, share common histories and stay involved with their enterprises. Finally, in 2011, he comes to the cautious conclusion that social entrepreneurs are not only a breed of business entrepreneurs: they may “embrace a businesslike thinking” (p. 44) and act similarly to high achievers, but they are different in their deep commitment to a social cause. While these findings do not paint a complete picture of a social entrepreneurial personality, they do indicate that certain special traits are a given for social entrepreneurs.

Nga and Shamuganathan (2010)

As described in Chapter 2.2.5., Nga and Shamuganathan (2010) also undertake an extensive quantitative analysis regarding social entrepreneurship. Aiming to establish which traits should be transmitted to college students to foster social entrepreneurship, they test the links between the Big Five personality traits (openness, extroversion, agreeableness, conscientiousness, neuroticism) and five dimensions they believe to be representative of social entrepreneurship – social vision, sustainability, social networks, innovation and financial returns. The majority of the hypothesis cannot be negated, suggesting that personality traits affect different elements of social entrepreneurship. Yet, it is left open how enabling these general personality traits will affect the fostering of social entrepreneurship.

Dreesbach (2010)

To date, Dreesbach (2010) has done the most extensive research on the traits which finally make up a social entrepreneurial personality. She develops a model to pinpoint the differences between social entrepreneurs and business entrepreneurs. Her hypotheses are based on the idea that while business and social entrepreneurs share an *entrepreneurial* personality, only social entrepreneurs also have a *prosocial* personality. Overall, 90 entrepreneurs, both social and business, complete her questionnaire. On the one hand, the results confirm her assumptions that with regards to entrepreneurial personality traits, social and business entrepreneurs *do not* differ from one another. On the other hand, her research shows that social and business entrepreneurs *do* differ significantly from one another with regards to their prosocial character, the social entrepreneurs showing higher levels. In conclusion, she states that social entrepreneurs have both an entrepreneurial and a prosocial character. While the study offers great insights into elements of a social entrepreneurial personality, it has a slight flaw in the categorization of social versus business entrepreneurs. Participants are asked one question concerning how relevant solving social problems and changing society is for their company. If they answer 5 or higher on a scale of 0-7, they are categorized as a social entrepreneur. Due to the fact that also companies with active CSR departments or greentech companies might score this questions highly, the classification solely based on this item may be considered imprudent.

Based on the existing studies of the social entrepreneurial personality, and the state of research, two conclusions can be drawn. First, there is currently no insight into which traits make up the social entrepreneurial personality which may influence social entrepreneurial intentions. Dreesbach's (2010) study certainly comes closest, but the categorization of social and business entrepreneurs leaves a question mark. While these traits may also exist for social entrepreneurs, the study shows no evidence of their relevance to intention creation. Second, the vast majority of personality-specific studies in social entrepreneurship (Barendsen & Gardner, 2004; Dreesbach, 2010; Light, 2009, 2011; Vasakarla, 2008) suggest that the social entrepreneurial personality is a mixture of an entrepreneurial personality, on the one hand, and a socially oriented one, on the other. This idea is further elaborated on in the following sections. First, the construct of entrepreneurial personality is developed, largely based on business entrepreneurship research to date. Then, the construct of prosocial personality is formed, based on findings in the area of social psychology.

3.2.1.3.1. Entrepreneurial personality in social entrepreneurship

“Social entrepreneurs are one species in the genus entrepreneur” (Dees, 1998b, p. 3)

Social entrepreneurs are often seen as a subspecies of the business entrepreneur (Achleitner, Heister, & Stahl, 2007; Dees, 1998b). Besides the findings of personality-specific studies above, various researchers have found personality traits in social entrepreneurs which are associated with business entrepreneurs. For example, Thompson, Alvy, and Lees (2000) list numerous characteristics shared by social and business entrepreneurs: e.g., ambitious, able to communicate and recruit resources. Martin and Osberg (2007) recognize that the social entrepreneur, like the business entrepreneur, is inspired by the unsatisfying equilibrium, creatively develops a solution, takes direct action, has the courage to start and the fortitude to continue. Perrini and Vurro (2006) also name various factors in which social entrepreneurs are similar to business entrepreneurs: entrepreneurial aptitude, risk-tolerance, strong desire to control, founding orientation, unhappy with the status quo, building of portfolios of resources, and an aptitude for networking (also see Winkler, 2008). Therefore, the model of social

entrepreneurial intention formation is extended by the construct of entrepreneurial personality, a subconstruct of the social entrepreneurial personality. This construct is developed in the following section.

As discussed above, large parts of the field are in agreement that some characteristics are shared by entrepreneurs (Brockhaus & Horwitz, 1986; Cromie, 2000). But, there is a difference between the understanding of what an entrepreneurial character is, especially between society and science (Braukmann et al., 2008). In line with the definition of the social entrepreneurial personality above, this study understands *entrepreneurial personality* to be a combination of stable traits common to entrepreneurial actors, uncommon within the rest of the population, which causes them to act the way they do. Further disagreement exists with regard to which exact traits establish such an entrepreneurial personality (Braukmann et al., 2008; G. F. Müller, 2000). Numerous traits have been associated with the entrepreneurial personality, some studies listing over 30 potential characteristics (Cromie, 2000). While some authors offer overviews of the separate studies and the traits they each include (e.g., Scheiner, 2009), others show overviews of frequently discussed traits and name studies in which they are applied (e.g., Carland, Hoy, Boulton, & Carland, 1984; Rauch & Frese, 2007; Verzat & Bachelet, 2006; Walter, 2008).

To establish the construct of entrepreneurial personality, it is important to select the traits included within it. The inclusion of a single trait is not enough to capture the complexity of the construct (Frank et al., 2007). This study includes five traits: *risk-taking propensity*, *innovativeness*, *need for achievement*, *need for independence* and *proactiveness*. Besides all factors having frequent occurrence in literature on entrepreneurial traits, these are also the specific traits confirmed by Rauch and Frese (2007) in their meta-analysis of the effect of personality on entrepreneurship and, hence, the factors included in Dreesbach's (2010) study on prosocial personality.²²

²² The aspect of self-efficacy is excluded, as within the model of social entrepreneurial intentions formation this is related to the separate concept of social entrepreneurial human capital.

Risk-taking propensity

Risk-taking is especially interesting as entrepreneurship is an area defined by high levels of uncertainty (Cromie, 2000; Shane et al., 2003). Entrepreneurs can, therefore, be expected to be risk-bearing people as they choose the risky path of entrepreneurship (Bönte & Jarosch, 2010). This trait is used frequently in entrepreneurship research, and while individual studies fail to show differences between the risk-bearing abilities of entrepreneurs versus managers (e.g., Brockhaus, 1980), Stewart and Roth (2001) show that it is due to measuring mistakes. Overall, empirical evidence exists that entrepreneurs have a higher propensity to take risks than others (Caird, 1991; Cromie, 2000; Rauch & Frese, 2007; Stewart & Roth, 2001).

Research to date also suggests a high level of risk-taking propensity in social entrepreneurs. While no specific empirical work has been done, anecdotal studies describe the social entrepreneur as risk-friendly (Bornstein & Davis, 2010; Canadian Centre for Social Entrepreneurship, 2001; Frances, 2008; Mort, Weerawardena, & Carnegie, 2003; Peredo & McLean, 2006; Winkler, 2008). The UK GEM report 2010 also shows that, on average, social entrepreneurs are less likely to let fear of failure stop them from starting a venture – while they still show less risk-taking propensity than business entrepreneurs (Harding, 2006). Dees (1998b) confirms that social entrepreneurs act boldly in the face of the challenges they meet. Therefore, risk-taking propensity is considered part of the entrepreneurial personality of a social entrepreneur.

Innovativeness

The person founding an enterprise must be willing to “reform or revolutionize” (Bönte & Jarosch, 2010, p. 7, quoting Schumpeter 1934). Innovation being part of the definition of entrepreneurship (see Chapter 2.1.3.1.), it is not surprising that this element is said to make up part of the entrepreneurial personality. As mentioned, early thought leaders in business entrepreneurship highlighted the importance of innovativeness, as the core of entrepreneurial activity (Drucker, 1985; Schumpeter, 1936, 1950). This assumption is confirmed in meta-analyses, showing that innovativeness is related to the entrepreneurial personality (Caird, 1991; Rauch & Frese, 2007).

Innovative character traits are also found in social entrepreneurs (Canadian Centre for Social Entrepreneurship, 2001; Leadbeater, 1997; Mort et al., 2003; Peredo & McLean, 2006; Weerawardena & Mort, 2006; Winkler, 2008). Dees (1998b) attests that they engage in continuous innovation. Therefore, innovativeness is included as part of the entrepreneurial personality of a social entrepreneur.

Need for achievement

In entrepreneurial research, need for achievement can be understood as “a person’s need to strive hard to attain success” (Cromie, 2000, p. 16). This trait was also mentioned early on in the field, McClelland (1965) even placing it in the centre of entrepreneurial activity. While it cannot be confirmed that need for achievement is the singular trait making out business entrepreneurs (Cromie, 2000), numerous studies show it as typical for entrepreneurs (Caird, 1991; Collins et al., 2004; Cromie, 2000; B. R. Johnson, 1990; Rauch & Frese, 2007).

As with the previous traits, anecdotal evidence in social entrepreneurship research points to the relevance of need for achievement (Canadian Centre for Social Entrepreneurship, 2001). Some of the adjectives used are ambitious (Winkler, 2008), relentless (Frances, 2008), and determined (Leadbeater, 1997). Dees (1998b) states that social entrepreneurs relentlessly pursue new opportunities. Therefore, need for achievement is integrated within the entrepreneurial personality of a social entrepreneur.

Need for independence

Studies have shown that entrepreneurs find it hard to work within rules and boundaries (Cromie, 2000). This is associated with a need for independence or autonomy. It is a less frequently mentioned trait and open to dispute (Cromie, 2000). Nonetheless, several studies and meta-analyses show a significant link between need for independence and business entrepreneurship (Caird, 1991; Cromie, 2000; Rauch & Frese, 2007).

Similar to the dispute over the existence of a lone social entrepreneur, acting as an individual hero, some researchers disagree with the idea that social entrepreneurs work independently (Light, 2005, 2006, 2009, 2011; Seanor & Meaton, 2007). Nonetheless, others say that social entrepreneurs, too, prefer self-determined, independent work (Barendsen & Gardner, 2004; Bornstein & Davis, 2010; Winkler, 2008), and are the sole

individuals who lead these active organisations (Leadbeater, 1997). Therefore, need for independence is considered as an element of the entrepreneurial personality of a social entrepreneur.

Proactiveness

Proactiveness is considered as an entrepreneurial trait, as most likely those willing to shape things are the ones who become entrepreneurs (Bönte & Jarosch, 2010). While individual studies in business entrepreneurship show no relevance of this trait (Utsch, 2004), there is an overall consensus that this characteristic is common in entrepreneurs (Dreesbach, 2010). This is confirmed in Rauch and Frese's (2007) meta-analysis and studies specifically on this trait (Bateman & Crant, 1993; Becherer & Maurer, 1999).

Again, social entrepreneurial studies hint at the presence of this trait in social entrepreneurs. While Mort, Weerawardena, and Carnegie (2003) specifically describe social entrepreneurs as proactive (also see Weerawardena & Mort, 2006), Peredo and McLean (2006) circumscribe the trait by stating that they take advantage of opportunities around them. Therefore, proactiveness is added to the construct of the entrepreneurial personality of a social entrepreneur.

To sum up, risk-taking propensity, innovativeness, need for achievement, need for independence and proactiveness are identified as elements of the entrepreneurial personality. Rather than develop five separate constructs, these elements are considered to be part of the comprehensive construct of entrepreneurial personality. This goes in line with Bönte and Jarosch (2010) who integrate several character traits into their concept of "individual entrepreneurial aptitude" (p. 1). They see it as a "cluster of psychological characteristics" (p. 1) within a multidimensional construct, in the case at hand entrepreneurial personality. Cromie (2000) also chooses this approach, arguing that while little success has been shown for each item individually, those studies using trait clusters have had better results. This study, therefore, considers the five personality traits – risk-taking propensity, innovativeness, need for achievement, need for independence and proactiveness – as integral parts of the construct of entrepreneurial personality.

Besides identifying similarities, all the papers comparing social and business entrepreneurs point out the one core difference between the two: the goal of their

enterprise. While business entrepreneurs are said to strive for profit, social entrepreneurs focus on their social mission (see Chapter 2.1.1. and 2.1.3.). It is based on this fact, that some researchers suggest the existence of a socially oriented personality alongside the entrepreneurial personality in the case of social entrepreneurs.

3.2.1.3.2. Prosocial personality in social entrepreneurship

“[...] Social entrepreneurs are more than another breed of business entrepreneur” (Light, 2011, p. 44)

Many anecdotal works on social entrepreneurship outline the passion the entrepreneurs develop for their cause, often pointing out the selflessness of their deeds (e.g., Bornstein, 2004). This commitment towards addressing social injustice is considered a sign of prosocial behaviour and suggests the existence of a prosocial personality (Dreesbach, 2010). Penner and Finkelstein (1998) define a prosocial personality as “an enduring tendency to think about the welfare and rights of other people, to feel concern and empathy for them, and to act in a way that benefits them” (p. 526).

Many researchers recognize this existence of a social drive in social entrepreneurs. In this sense, Guclu and Dees (2002) write “Social entrepreneurs must have the same commitment and determination as a traditional business entrepreneur, plus a deep passion for the social cause, minus an expectation of significant financial gains” (p. 13). Simms and Robinson (2005) go a step further and suggest that social entrepreneurs have dual personalities, split between activists and business entrepreneurs.

To further specify what defines this social element, researchers have begun to focus on personality aspects. In a rather abstract manner, Drayton (2002) names “strong ethical fibre” (p. 124) as a necessary ingredient to becoming a social entrepreneur. In a more specific manner, Mayberry (2006) recognizes that values are a recurring topic when analysing social entrepreneurs. Further researchers attest that social entrepreneurs have values from early on and show non-egotistical behaviour (Drayton, 2002; Hemingway, 2005). Others identify specific character traits representing this social aspect in social entrepreneurs’ personalities. In their previously discussed model, Mair and Noboa (2006) recognize an additional trait for social entrepreneurs: “[..] many of these attributes may

equally apply to business entrepreneurial behaviour, with one exception, receptivity to the feelings of others, or put differently, empathy” (p. 123f.). This concept is also recognized by Bhawe, Jain, and Gupta (2007), whose qualitative study shows that social entrepreneurs have a strong empathy for people affected by social problems. Both studies regarding empathy obtain their insight from work on prosocial character traits. Dreesbach (2010) adopts this idea and adds the construct of prosocial personality to the entrepreneurial personality to understand the overall personality of social entrepreneurs. Her detailed quantitative analysis shows that this prosocial personality is, in fact, the core differentiator between business and social entrepreneurs. This is supported by numerous studies in social psychology, which have shown a link between a prosocial personality and prosocial behaviour such as helping or volunteering (Bierhoff, 2010; M. H. Davis et al., 1999; Penner, 2002; Penner, Dovidio, Piliavin, & Schroeder, 2005). Hereby, those actions are considered as prosocial behaviour which society sees as generally beneficial (Penner et al., 2005). In this sense, social entrepreneurship can be considered prosocial behaviour. Hence, the prosocial personality is a relevant element when looking at social entrepreneurship and the underlying intentions. Therefore, the model of social entrepreneurial intentions is extended by the construct of prosocial personality, a second subconstruct of the social entrepreneurial personality. This construct is developed in the following section.

The prosocial personality is made up of the traits moving people to act in a way benefiting other people than themselves (Dreesbach, 2010; Penner et al., 2005). This phenomenon and related behaviour has been treated extensively in social psychology research to date (Dreesbach, 2010). One finding has been that there seems to be a prosocial personality, which is consistent over time (Eisenberg et al., 2002). These characteristics cause a person to act when the distress of others arouses them (Penner et al., 2005). Prosocial personality is associated with helping, social responsibility, care orientation, consideration of others, and sympathy (Eisenberg et al., 2002). In line with the definitions of the social entrepreneurial and entrepreneurial personality above, this study understands *prosocial personality* to be a combination of stable traits common to prosocial actors, uncommon within the rest of the population, which cause them to act the way they do.

As is the case of entrepreneurial personality, there is much discussion of what traits make up the prosocial personality, a quest initiated by Louis A. Penner in the 1980s which has shown limited results to date (Eisenberg et al., 2002). In general, they are traits which foster helping attitudes (Dreesbach, 2010). Specifically, different constellations are suggested. Penner and his associates advocate the study of two underlying dimensions: empathy and helpfulness (Penner, Fritzsche, Craiger, & Freifeld, 1995). Alternatively, Eisenberg & Guthrie (2002) focus on empathy and sympathy. Finally, Bierhoff sees the prosocial personality as made up of empathy and social responsibility (Bierhoff, 1996; Dreesbach, 2010). In line with Dreesbach's (2010) study on prosocial personality, Bierhoff's (1996) concept is adapted and includes the dimensions of empathy and social responsibility in this study's analysis of the prosocial personality.

Empathy

As described above, empathy is a central core of all suggested constellations of prosocial personality. The construct comes from social psychology and describes the ability of a person to put yourself in another's shoes (Dreesbach, 2010). There are a number of dominating definitions present in research on the topic (Dreesbach, 2010). One is taken from Penner, Dovidio, Piliavin, and Schroeder (2005) who describe empathy as "the ability to discern and vicariously experience the emotional state of another being" (p. 371). Wakabayashi, Baron-Cohen, Wheelwright, Goldenfeld, Delaney, Fine, Smith, and Weil (2006) put it more bluntly as "[...] the drive to identify emotions and thoughts of others and to respond to these with an appropriate emotion" (p. 930). Frequently it is split into affective and cognitive empathy (Mehrabian & Epstein, 1972). Affective empathy means the actual emotional compassion with another (Penner et al., 2005), cognitive empathy means the ability to perceive the emotional state of other people (Dreesbach, 2010).

Borman, Penner, Allen, and Motowidlo's (2001) meta-analysis shows a significant relationship between empathy and prosocial behaviour. As mentioned above, in the area of social entrepreneurship the concept of empathy has been integrated into models by Mair and Noboa (2006), Bhawe, Jain, and Gupta (2007), and Dreesbach (2010). Interestingly, Dreesbach's (2010) study of the prosocial personality in social entrepreneurs showed that social entrepreneurs do not differ from business entrepreneurs

concerning empathy. In fact, empathy proves to have a small negative effect on the tendency to be a social entrepreneur, even though it is only at a 10% significance level. Nonetheless, the concept of empathy is included in this model of social entrepreneurial intentions as part of the prosocial personality.

Sense of social responsibility

Sense of social responsibility is the trait which causes a sense of obligation to assist those in distress (Bierhoff, 1996). Hereby, the inner conviction to help overweighs the costs of doing so (Dreesbach, 2010). It is closely related to the concept of helpfulness, which Penner, Fritzsche, Craiger, and Freifeld (1995) describe as “the tendency to provide help to needy individuals [...]” (p. 149). This aspect shows itself in numerous papers on volunteering. When studying volunteers in several countries, Hustinx, Handy, Cnaan, Brudney, Pessi, and Yamauchi (2010) discover that the number one motivation to help is that the people find it “important to help others” (p. 363), a finding also recognized by Clary and co-authors (Clary & Snyder, 1999; Clary, Snyder, & Stukas, 1996).

Borman, Penner, Allen, and Motowidlo’s (2001) meta-analysis also shows significant relationships between helpfulness and prosocial behaviour. Within social entrepreneurship research, while the topic of social responsibility has not been addressed specifically, it seems to be an inherent assumption in line with this choice of career path. As mentioned, authors such as Bornstein (2004) underline the selflessness of social entrepreneurs, and Drayton (2002) and Nicholls (2006a) highlight their ‘ethical fibre’. These aspects indicate the presence of a sense of social responsibility in social entrepreneurs. Dreesbach (2010) shows that sense of social responsibility is the core differentiator between social and business entrepreneurs’ personalities. Therefore, the concept of social responsibility is included in the model of social entrepreneurial intentions as part of the prosocial personality.

3.2.1.4. Hypotheses on the role of social entrepreneurial personality in the model of social entrepreneurial intention formation

To allocate the concept of social entrepreneurial personality within the model of social entrepreneurial intention formation, indications for links between the constructs within

the model must be detected. Some researchers have suggested direct links, Baum, Locke, and Smith (2001) also empirically showing that traits of an entrepreneur have an effect on venture growth. Yet, in social psychology, it is rather considered that factors like personality have an effect on attitudes, for example, within the TPB. This idea has been associated with attitudes towards entrepreneurship. Robinson, Stimpson, Huefner, and Hunt (1991) display how specific traits such as innovativeness can affect general attitudes relevant for entrepreneurship. Regarding general personality traits taken from the Big Five, Singh and DeNoble (2003) show that students' personalities causally affect their views on entrepreneurship. These views consist both of intentions to become entrepreneurs as well as perceptions of desirability and feasibility. Moving further to the intention-specific research, Lüthje and Franke (2003) integrate personality into their model of entrepreneurial intention formation which they test with students. They show that personality traits such as risk-taking propensity have a strong positive effect on ATB which subsequently affects the intention to become an entrepreneur. It can, therefore, be concluded that previous studies have shown evidence of a relationship between personality and ATB (Kolvereid & Isaksen, 2006 also confirm such a relationship). Additionally, social psychology research has shown that a prosocial personality can trigger helping activities with the aim of increasing one's reputation or satisfying the norms of one's surroundings (Penner et al., 2005), concepts similar to the understanding of SN used in this study. Within the realm of social entrepreneurial intentions, Mair and Noboa's (2006) model specifically suggests that a prosocial personality affects the desirability to become a social entrepreneur. As the authors mention, the concept of desirability includes the concepts of ATB and SN, as they are expressed in models based on the TPB. As it is the only previously developed model on the formation of social entrepreneurial intentions, the assumptions made by Mair and Noboa (2006) are adopted, and it is hypothesized that the social entrepreneurial personality has an effect on both ATB-SE and SN-SE.

Two hypotheses are, therefore, formulated concerning the entrepreneurial personality:

***Hypothesis 1.1.:** Entrepreneurial personality, consisting of the traits of risk-taking propensity, innovativeness, need for achievement, need for independence*

and proactiveness, has a positive effect on the attitude towards social entrepreneurship

Hypothesis 1.2.: *Entrepreneurial personality, consisting of the traits of risk-taking propensity, innovativeness, need for achievement, need for independence and proactiveness, has a positive effect on the subjective norms on social entrepreneurship*

Another two hypotheses are, therefore, formulated concerning the prosocial personality:

Hypothesis 1.3.: *Prosocial personality, consisting of the traits of empathy and sense of social responsibility, has a positive effect on the attitude towards social entrepreneurship*

Hypothesis 1.4.: *Prosocial personality, consisting of the traits of empathy and sense of social responsibility, has a positive effect on the subjective norms on social entrepreneurship*

The hypothesized causal effects are graphically shown in Figure 14.

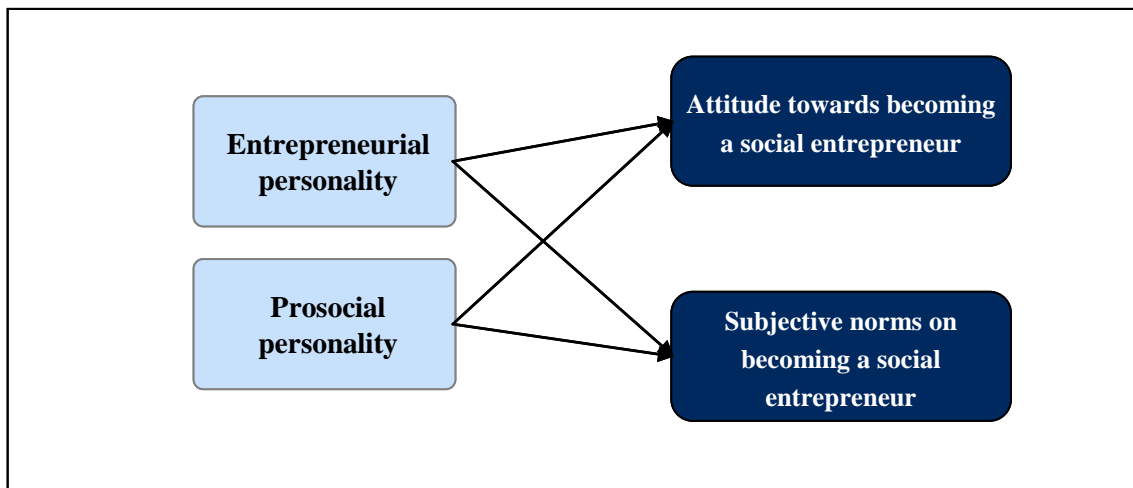


Figure 14: Hypothesized effects of social entrepreneurial personality within the model of social entrepreneurial intention formation

3.2.2. Social entrepreneurial human capital

Business entrepreneurship literature sees human and social capital as two relevant counterparts necessary for the creation of a new organisation (Brüderl & Preisendorfer, 1998; Sharir & Lerner, 2006). Following the criteria established for construct selection, social entrepreneurial human capital is included as an antecedent within the model of social entrepreneurial intention formation, as it is an individual-based factor, which can be expected to influence ATB-SE, SN-SE and/or PBC-SE, due to its frequent occurrence in both social and business entrepreneurship research.

3.2.1.1. The motivation behind including social entrepreneurial human capital in the model of social entrepreneurial intention formation

After developing an understanding of social entrepreneurial human capital, it is briefly portrayed which role this construct plays in social entrepreneurship research to date.

3.2.1.1.1. Understanding of social entrepreneurial human capital

In the realm of individual-based research, human capital is understood to consist of two factors: specific knowledge and skills, both necessary for acting entrepreneurially (Shane et al., 2003). While some researchers see formal education as the basis for knowledge and skills, in the sense of a rite of passage to entrepreneurship (S. Y. Cooper & Park, 2008; Teixeira & Forte, 2009), Davidsson and Honig (2003) point out that experiences and other types of nonformal learning can also lead to the relevant abilities. Therefore, it is assumed that human capital in the shape of knowledge and skills often stems from prior experience and/or education (S. Y. Cooper & Park, 2008; Dimov, 2007a; Teixeira & Forte, 2009).

To actually form human capital, the level of subjectively perceived abilities is of relevance, rather than the factual prior experience or education they stem from. Humans do not derive the same value from experiences, as they do not derive the same value from information (Dimov, 2007b). Therefore, not only the fact that someone visited a course or worked in an industry is important, it is the level of expertise and knowledge they feel

they gained from doing this. And this level will vary between individuals (Kor et al., 2007). Hence, to understand social entrepreneurial intention formation, the perception of one's abilities is of relevance. Subsequently, this study understands *social entrepreneurial human capital* as a combination of perceived knowledge and skills, relevant for social entrepreneurship.

Such a differentiation between knowledge and skills, and experience and education, and their interaction effects are not often considered in entrepreneurship research. Dimov (2007b), for example, includes both demographic experience and perceived knowledge in his model on action likelihood in business entrepreneurship, the former an objective factor, the latter a cognitive construct in the understanding of this thesis. He concludes that knowledge shows no significant effect on likelihood. Yet, in his hierarchical regression, he adds experience in a first step, and knowledge later, in a second step. Therefore, if strong interactions exist between experience and consequent knowledge, statistical errors may have led to the insignificant results for knowledge.

Even though two separate factors of relevance were identified – knowledge and skills – both based on experience and education, they are often intertwined in previous research, so that an individual analysis is difficult. Therefore, previous studies on human capital as a whole are examined, whether on knowledge or skills or both. Specific findings on experience and education are also included, as they are considered core determinants of human capital. This study understands *perceived social entrepreneurial knowledge/experience* as the perceived level of knowledge the subject has in regard to becoming a social entrepreneur, and *perceived social entrepreneurial skills* as the perceived level of skills the subject has in regard to becoming a social entrepreneur.

3.2.2.1.2. The relevance of human capital in social entrepreneurial research to date

While there are no specific texts on human capital in social entrepreneurship research, related factors often appear in relevant literature. Anecdotal texts mention the importance of past experience and the resulting knowledge when becoming a social entrepreneur (Perrini & Vurro, 2006), the role of 'trigger' events (Barendsen & Gardner, 2004), and the importance of social skills (Elkington & Hartigan, 2008). Dorado (2006) also

suggested analysing the role of human capital elements in social entrepreneurship research, due to the findings on the topic from business entrepreneurship research.

3.2.2.2. Human capital in business entrepreneurship research

Human capital has various “homes” within business research. While it is analysed on a societal level as a motor for economic development (S. Y. Lee, Florida, & Acs, 2004) or as a driver of technology-based industries (Audretsch & Stephan, 1999), it is also integrated in firm- and individual-based studies. On a firm-level, the human capital is discussed to advance human resource management (Nahapiet & Ghoshal, 1997, 1998; Verheul, 2003). And on an individual level, human capital is primarily regarded in research on opportunity recognition (Shane, 2000) or when comparing entrepreneurs and managers (Chen, Greene, & Crick, 1998). This research is shaped by these individual studies.

It must be added that this understanding of human capital includes self-efficacy, an element frequently brought into connection with both PBC (e.g., Armitage & Conner, 2001) and the entrepreneurial personality (e.g., Rauch & Frese, 2007). Mueller and Data-On (2008) define self-efficacy as “a psychological state generally defined as possessing self-confidence in performing a specific task” (p. 4). Similarly to this study, Wang, Wong, and Lu (2001) show that perceived self-efficacy is an antecedent to attitude constructs regarding becoming a business entrepreneur. Here, self-efficacy is considered as part of human capital, as it is based on perceptions of the specific abilities needed to fulfil a specific task (Alden, 1986; McGee, Peterson, Mueller, & Sequeira, 2009). In comparison, PBC is broader, encompassing general feelings of ease and controllability regarding this action, above and beyond abilities (Liñán, 2008). Entrepreneurial personality itself regards stable, long-lasting and constant traits, to which the perception of one’s ability level regarding a specific task in a specific moment cannot be included. Therefore, reflections and findings on self-efficacy are included in our development of the construct of perceived social entrepreneurial human capital.

While individual studies fail to show interaction effects, in general, research to date suggests a positive relationship between human capital and *entrepreneurial activity*

(Bates, 1990, 1995; Davidsson & Honig, 2003; Mitchell & Shepherd, 2010 2008). Entrepreneurs usually start businesses related to things they did before (A. C. Cooper, 1985) – hence, in areas in which they can be expected to possess human capital. This is due to the fact that opportunity recognition is facilitated when acting in a familiar area (Shane, 2000). Human capital theory explains this. As experience in a field increases specific cognitive abilities concerning the field, it leads to enhanced activity such as opportunity recognition (Davidsson & Honig, 2003). In this sense, knowledge and skills are the cognitive elements which influence venture creation (Shane et al., 2003) – “What do I know, including what do I know how to do?” (Locke, 2000, p. 409). Research has primarily shown these links between human capital and opportunity perception or more innovative ideas (Davidsson & Honig, 2003; Goethner et al., 2009; Shane, 2000). Opportunity recognition is considered an early step of an entrepreneurial venture and marks the discovery of a business idea (Dimov, 2007a; Shane & Venkataraman, 2000). When analysing this phase, some studies explore the direct role of education and professional experience, factors affecting human capital. Davidsson and Honig’s (2003) Swedish study of nascent entrepreneurs showed that there was a significant, yet small direct effect between formal education and start-up experience on the discovery of business opportunities. Similarly, Robinson and Sexton’s (1994) panel study based on the 1980 U.S. Census of Population showed that statistically, education and experience positively affect self-employment probability. However, some work also deals with the direct effects of the products of experience and education: knowledge and skill. On the one hand, knowledge is established as a factor affecting opportunity recognition (Ardichvili, Cardozo, & Ray, 2003; Baron, 2006; Companys & McMullen, 2007; Kirzner, 1979, 1985; McMullen & Shepherd, 2006; Shane, 2000, 2003). For some researchers it is the one thing that all other factors run into (Companys & McMullen, 2007): Knowledge limited through transaction costs (Kirzner, 1997; Shane & Venkataraman, 2000), limited by cognitive abilities (Dimov, 2007a; Weick, 1979), or limited by access to social networks (Aldrich, 1999; Hills & Schrader, 1998). On the other hand, skills are also a recurring topic in studies on opportunity recognition. Especially the cognitive abilities resulting in alertness, a core competency of entrepreneurs in the eyes of the Austrian school, have been included in analyses (Dimov, 2007b; Kirzner, 1979, 1985; 2000). Skills have also shown first effects on future venture

growth, as Baum and Locke (2004) deduced in their six-year study on new resource skills.

Surprisingly, very little work has been done on the effects of knowledge and industry expertise or skills on *intention formation* in business entrepreneurship. This is unexpected, as one would expect people to be more motivated or able to consider a career or self-employment if they know a lot about the market they will move into or for which they feel they have obtained the relevant skills. On a theoretical level, Boyd and Vozikis (1994) suggest a direct effect of skills on both attitudes and founding intentions. More specifically, Chen, Greene, and Crick (1998) and DeNoble, Jung, and Ehrlich (1999) elaborate on the skills that make up entrepreneurial self-efficacy, which they consider the core influencer on entrepreneurial intention formation. Yet, while a number of empirical intention studies do include previous experience or education as control variables, or even as direct effects on intentions, very few look at the effects of the knowledge or skills which stem from these antecedents. Overall, results have been mixed, ranging from no effect to significant positive effects (Teixera & Forte, 2009).

Concerning *direct* influences of human capital or its determinants on entrepreneurial intentions, studies have included them as explanatory variables or control variables in broader intention models. Table 2 shows selected studies with strongly varying information on the direct effect of *education* on entrepreneurial intentions.

3.2. Extension of the classical model of the theory of planned behaviour for the model of social entrepreneurial intention formation

Source	Independent variable	Dependent variable	Resulting effect
Chen, Greene, and Crick (1998)	previous education	entrepreneurial intention	n/a
Kolvereid and Moen (1997)	entrepreneurship major	entrepreneurial intention	+
Kolvereid & Isaksen (2006)	education	entrepreneurial intention	n/a
Souitaris, Zerbinati, and Al-Laham (2007)	entrepreneurship course participation	entrepreneurial intention	+
Oosterbeek, van Praag, and IJsselstein (2008)	entrepreneurship course participation	entrepreneurial intention	-
Lucas and Cooper (2004)	entrepreneurship course participation	awareness and opportunity recognition	+

Table 2: Selected studies analysing the direct links of education to entrepreneurial intentions or related concepts

Table 3 shows positive results on the direct effect of *experience* on entrepreneurial intentions.

Source	Independent variable	Dependent variable	Resulting effect
Dimov (2007a)	experience	action likelihood	+
Kolvereid and Moen (1997)	start-up experience	entrepreneurial intention	+
Kolvereid and Isaksen (2006)	serial entrepreneurial experience	entrepreneurial intention	+
Autio, Keeley, Klofsten, Parker, and Hay (2001)	work experience in small firms	entrepreneurial intention	(+)
Goethner, Obschonka, Silbereisen, and Cantner (2009)	work experience in small firms	entrepreneurial intention	+

Table 3: Selected studies analysing the direct links of experience to entrepreneurial intentions or related concepts

Table 4 shows two selected studies on the direct effects of the elements of *human capital* on entrepreneurial intentions, with mixed results.

3.2. Extension of the classical model of the theory of planned behaviour for the model of social entrepreneurial intention formation

Source	Independent variable	Dependent variable	Resulting effect
Dimov (2007a)	knowledge	action likelihood	-
Chen, Greene, and Crick (1998)	self-efficacy	entrepreneurial intention	+

Table 4: Selected studies analysing direct links of knowledge/skills to entrepreneurial intentions or related concepts

In summary, the results of direct links are diverse. Based on these contradictions, Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010) come to the conclusion that participation in courses may not be the correct measure for human capital, as courses are too diverse. In line with the TPB, the indirect effects on entrepreneurial intentions should also be considered.

When human capital or its antecedents are included as *indirect* effects in business entrepreneurial intention models, results are also varied. Table 5 looks at the relationship between *education* and antecedents of entrepreneurial intentions. The results are mixed, but better than the previous direct analysis of educational effects.

Source	Independent variable	Dependent variable	Resulting effect
Walter and Dohse (2009)	entrepreneurial education	ATB	+
Souitaris, Zerbini, and Al-Laham (2007)	entrepreneurship course	SN	+
Müller (2008a)	entrepreneurship course	PBC	+
Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010)	attendance in entrepreneurship course	ATB	n/a
		PBC	n/a

Table 5: Selected studies analysing links of education on antecedents to entrepreneurial intentions

3.2. Extension of the classical model of the theory of planned behaviour for the model of social entrepreneurial intention formation

Table 6 shows selected studies of links between *experience* and antecedents of entrepreneurial intentions. Again, the results are positive.

Source	Independent variable	Dependent variable	Resulting effect
Liñán and Chen (2007)	entrepreneurial experience	ATB	+
		PBC	+
		SN	n/a
Walter and Dohse (2009)	entrepreneurship experience	PBC	+
Krueger (1993)	prior experience	feasibility	+
		desirability	+

Table 6: Selected studies analysing links of experience on antecedents to entrepreneurial intentions

Finally, Table 7 shows links between constructs of *human capital* and antecedents to entrepreneurial intentions. These results are positive overall.

Source	Independent variable	Dependent variable	Resulting effect
Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010)	knowledge	ATB	+
		PBC	+
Liñán (2008)	skills	ATB	+
		PBC	+
		SN	+

Table 7: Selected studies analysing links of knowledge/skills on antecedents to entrepreneurial intentions

These results of the indirect effect of human capital or its determinants on antecedents to entrepreneurial intentions are far better than those regarding direct links to entrepreneurial intentions. Hence, the relationship between the two elements should be indirect. Additionally, as previously discussed, the perception of one's knowledge and skills based on these experiences and educational experiences are what matters, rather

than the experience or education itself. In this sense, in a study dedicated to the mediating role of self-efficacy in forming entrepreneurial intentions, Zhao, Seibert, and Hills (2005) show that the effects of learning and entrepreneurial experience on respective intentions are fully mediated by entrepreneurial self-efficacy. Similar results are found in Oosterbeek, van Praag, and IJsselstein (2008) and Lucas and Cooper (2004). Therefore, the cognitive constructs of perceived knowledge and skills should be a better measure than experience and education in studies on intention. The construct of perceived knowledge is extended by the concept of perceived experience. Even objective experience has shown extremely positive results in entrepreneurship studies, as can be seen above. Therefore, a level of perceived expertise gained from this experience is included in the construct of social entrepreneurial human capital. Hence, the study should focus on the perceived social entrepreneurial knowledge/experience and perceived social entrepreneurial skills in the model of social entrepreneurial intention formation.²³

3.2.2.3. Human capital in social entrepreneurship research

As in the case of business entrepreneurship, human capital can be seen as a complement to social capital in social entrepreneurial venturing (Smith-Hunter, 2008). As mentioned above, there are no studies specifically focused on human capital in social entrepreneurship. Nonetheless, first learnings can be deducted from more general studies in the area. Irrespective of community-based papers mentioning the role of human capital in economic development (e.g., Gliedt & Parker, 2007), the main sources of insight are preliminary studies on opportunity recognition in social entrepreneurship and the background of social entrepreneurs. As Murphy and Coombes (2009) suggest, experience and skills are considered as a basis for social entrepreneurship, as is the case in business entrepreneurship.

Concerning perceived entrepreneurial *knowledge/experience*, many papers on the origins of social entrepreneurship mention some kind of previous experience. As this is

²³ Similarly to the present research on experience in business entrepreneurship, work looking at volunteering or helping behaviour has shown correlations between this target behaviour and previous experience in the area (e.g., Penner & Finkelstein, 1998).

considered to be the main source of perceived knowledge/experience by this study, the results are examined. Guclu, Dees, and Anderson (2002) mention general personal experiences as necessary factors to generate social entrepreneurial ideas. This is in line with Farmer and Kilpatrick (2009) who see work or personal interests as sources of the activities of rural health professionals. Numerous other papers generally name previous experience or knowledge as a source of social entrepreneurship (Corner & Ho, 2010; Perrini & Vurro, 2006; Sharir & Lerner, 2006). More specifically, individual work has indicated that for social entrepreneurship, experience is necessary from two areas: both in entrepreneurship and also in the relevant social field (J. A. Robinson, 2006). On the one hand, in his interview with Meehan (2004), Bill Drayton names entrepreneurial experience as a first stepping stone for social entrepreneurship. On the other hand, Mair and Noboa (2006) point out that involvement with the social sector is an antecedent for numerous factors affecting social entrepreneurial intentions. Similarly, Shaw and Carter (2007) mention that social entrepreneurs have prior experience, mostly in social areas. This social experience is also necessary as various studies have highlighted the importance of 'trigger' events, which presumably occur as part of this interaction (Barendsen & Gardner, 2004; Bhawe et al., 2007; Perrini & Vurro, 2006).

It must be added that the vast majority of these studies are of an anecdotal or theoretical nature, so that these assumptions cannot be manifested. To date, two pieces of research measured experience as part of qualitative studies. Maase and Dorst's (2007) analysis of five grassroot social enterprises shows that in five cases, entrepreneurs do not have previous professional experience in a relevant area. Likewise, Spear's (2006) interviews with co-ops reveal that only little entrepreneurial experience is given. In the light of these two opening studies, it is questionable if an effect of perceived knowledge/experience and on social entrepreneurial intentions will prevail. However, due to its frequent occurrence in social entrepreneurship theory, the construct of perceived social entrepreneurial knowledge/experience is included in the model.

Concerning *perceived skills*, individual studies mention relevant skills for social entrepreneurship. Again, there is a split between entrepreneurial and social factors. In his literature review, Johnson (2000) recognizes that as social entrepreneurs act like business entrepreneurs, the same skills should be applicable. In this sense, Frances (2008) points

out the importance of entrepreneurial skills, and Elkington and Hartigan (2008) identify leadership skills as important. The UK GEM report from 2010 also shows that social entrepreneurs are more likely to believe they have business skills than the average population – yet they show less confidence than business entrepreneurs in this aspect (Harding, 2006). Likewise, Drayton (2006) underlines the importance of socially oriented skills when becoming a change maker in society. Due to these suggestions, perceived social entrepreneurial skills are included in the model.

3.2.2.4. Hypotheses on the role of social entrepreneurial human capital in the model of social entrepreneurial intention formation

Early on in business entrepreneurship research, Knight (1939) already stated: “We perceive the world before we react to it, and we react to not what we perceive, but always to what we infer” (p. 201). Hence, the perceptions of one’s relevant knowledge and skills will not affect one’s action, but the conclusions which are deducted from these perceptions will. Both Ajzen (1991) and Shapero and Sokol (1982) assume that prior experiences will affect intentions indirectly through attitude and desirability, or feasibility and perceived controllability (Krueger, 1993). In this sense, perceived social entrepreneurial knowledge/experience and perceived social entrepreneurial skills can be expected to have an indirect effect on social entrepreneurial intentions via attitude-level TPB-constructs.

In fact, as mentioned above, previous studies show links between experience or education on antecedents of business intentions. Here, primarily, the effects on PBC prove significant (Liñán, 2008; Liñán & Chen, 2007; S. Müller, 2008b; Ruhle et al., 2010; Walter & Dohse, 2009). It is understandable that those people who believe they possess relevant abilities in an area are more likely to believe they can cope with the realization of the target behaviour. Therefore, we can expect a positive link between perceived social entrepreneurial human capital and PBC-SE.

Several studies also show the effects of experience, education and resulting knowledge on ATB regarding business entrepreneurial intentions (Liñán, 2008; Liñán & Chen, 2007; Ruhle et al., 2010; Walter & Dohse, 2009). It is likely that having developed relevant

knowledge and skills in an area, action in that area becomes more attractive, as more information is possessed and insights lead to enthusiasm. Therefore, we can expect a positive link between perceived social entrepreneurial human capital and ATB-SE.

The hypotheses regarding perceived social entrepreneurial knowledge/experience are therefore:

***Hypothesis 2.1.:** Perceived social entrepreneurial knowledge/experience has a positive effect on the attitude towards becoming a social entrepreneur*

***Hypothesis 2.2.:** Perceived social entrepreneurial knowledge/experience has a positive effect on the perceived behavioural control on becoming a social entrepreneur*

The hypotheses regarding perceived social entrepreneurial skills are therefore:

***Hypothesis 2.3.:** Perceived social entrepreneurial skills have a positive effect on the attitude towards becoming a social entrepreneur*

***Hypothesis 2.4.:** Perceived social entrepreneurial skills have a positive effect on the perceived behavioural control on becoming a social entrepreneur*

The hypothesized causal effects are graphically shown in Figure 15.

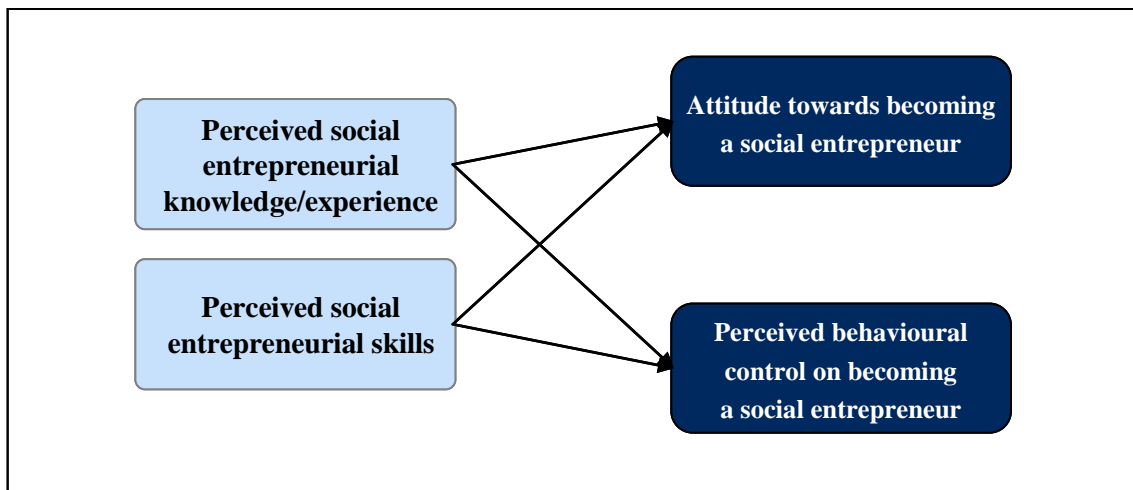


Figure 15: Hypothesized effects of social entrepreneurial human capital within the model of social entrepreneurial intention formation

3.2.3. Social entrepreneurial social capital

The following sections describe human capital's counterpart in venture creation: social capital (Brüderl & Preisendorfer, 1998; Davidsson & Honig, 2003; Sharir & Lerner, 2006). Based on the criteria developed for construct selection, social entrepreneurial social capital is identified as a possible antecedent within the model of social entrepreneurial intention formation, as it is an individual-based factor. Due to its frequent occurrence in both social and business entrepreneurship research, it can also be expected to influence ATB-SE, SN-SE and/or PBC-SE with regard to becoming a social entrepreneur.

3.2.3.1. The motivation behind including social entrepreneurial social capital in the model of social entrepreneurial intention formation

Based on extensive knowledge from social capital theory, an understanding of social entrepreneurial social capital is developed for this study. Then, its role in social entrepreneurship research is discussed. Here, findings to date are included.

3.2.3.1.1. Understanding of social entrepreneurial social capital

Social capital is a new socioeconomic concept even though the terminology itself dates back to the 1960s. It offers rich insights into various fields of research as it moves the analysis of an economic actor away from the sole rational individual towards its role within a complex web of formal and informal contacts, and limiting or supporting institutions (Granovetter, 1985). Social capital, like all other forms of capital, is productive and enables owners to do things they could not do without it (Coleman, 1988; Lyons, 2002). Yet, different to other forms of capital, it is not held and used by one individual alone, but exists between various actors and is activated by their interactions with one another (Coleman, 1988).

Social capital is a term with numerous definitions, typologies and applications (Hackl, 2009). All definitions are similar in that social capital has something to do with interactions between an individual and other people or institutions. In this sense, social

capital concerns social structures through which certain actions of the actors within the structures are facilitated (Coleman, 1988). Yet from there, the concepts differ. Poetically, Anderson and Jack (2002) describe social capital as the glue that holds a network of people together as well as a lubricant which enables their interactions. Hence, they understand it as something unspecific located between different people. Rather than describe its role, Liñán and Javier Santos (2007) focus on its content, stating that “Social capital is made up of the relationships, either formal or informal, generated by individuals in their interaction with other individuals trying to obtain an expected reward in the market” (p. 446). Rather than the relationship, Baron and Markman (2000) consider the resources exchanged as the core of social capital: “Social capital refers to the actual and potential resources individuals obtain from knowing others, being part of a social network with them, or merely from being known to them and having a good reputation” (p.107). This is similar to Nahapiet and Ghoshal’s (1997) concept: “We define social capital as the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (p. 35). Obviously, there is no agreement on definition. But on a general level, in a first step towards developing an understanding for this study, it is noted that social capital concerns both formal and informal relationships through which resources are assessed.

Social capital is also applied to different levels of analysis. In this way, it has gained an important role in economic and management research on a macro- (Granovetter, 1992, 2005; Groothaert & van Bastelaer, 2002), meso- (Aarstad, Haugland, & Greve, 2009; Johannisson, Ramírez-Pasillas, & Karlsson, 2002; Molina-Morales & Martínez-Fernández, 2010; Pirolo & Presutti, 2010; Yli-Renko, Autio, & Sapienza, 2001), and micro-level (Liñán & Javier Santos, 2007). While the majority of studies, especially in management literature, focus on the meso- or firm-level of social capital, this study chooses the micro-perspective. This looks at the origins and advantages of social capital at an individual level, considering it a personal resource (Hackl, 2009). This is a challenging perspective in entrepreneurial studies, as it is often hard to differentiate between the person of the entrepreneur and their firm, making a distinction between meso- and micro-level insights quite ‘fuzzy’ (De Koning, 2003, p. 283). Nonetheless, as this study aims at analysing individual motivation, the micro-perspective is chosen.

Hence, in a second step to developing an understanding of social entrepreneurial social capital, this study limits itself to the analysis of social capital on the level of an individual.

Finally, there are also various typologies of social capital available in current literature. While Lyons (2002) differs between vertical (hierarchical) and horizontal social capital, focusing on the direction of resource flow, Liñán and Javier Santos (2007) emphasize the quality of social capital. They differ between strong “bonding” social capital and sporadic “bridging” social capital. Taking up the idea of the quality of relationships, Anderson and Jack (2002) suggest defining both the structural and relational aspects of social capital, the former focusing on the quantity of direct and indirect contacts, and the latter on the quality of these contacts. The differentiation between ‘relational’ and ‘structural’ social capital reappear in various other typologies of social capital, mostly with altering definitions. For example, besides the quality of contacts, *relational* social capital is said to be rooted in nuances of relationships, such as trust (Davies & Ryals, 2010). *Structural* social capital, on the other hand, can mean a formal network with procedures and collective action (Liñán & Javier Santos, 2007), or network ties, network diversity and appropriable organisation (Nahapiet & Ghoshal, 1997, 1998), besides the factual number of direct or indirect links. Additionally, a third type of social capital appears in some pieces of work, *cognitive* social capital. This refers to the perceived level of social capital, forming attitudes or beliefs (Liñán & Javier Santos, 2007). Others understand it to be the “derivation of shared meanings in particular contexts” (Nga & Shamuganathan, 2010, p. 265), like codes or languages (Davies & Ryals, 2010).²⁴ To find a common understanding for this study, a simplified version of each social capital type is offered. Structural social capital is understood as the quantity of direct or indirect relationships in a network (A. R. Anderson & Jack, 2002; Hackl, 2009). Relational social capital explains the quality of these relationships, strong or weak, with more or less resource interaction (adapted from A. R. Anderson & Jack, 2002; Hackl, 2009). Finally, cognitive social capital is understood as the resources which are mobilized due to a joint language between members of a network, ensuring a faster and simpler interaction (Hackl, 2009).

²⁴ There are further types such as “resource” dimension as suggested by Casanueva and Gallego (2010), yet this short analysis is limited to the three most frequent types mentioned.

Irrespective of all typologies, this study focuses on social capital as it is perceived by the individual – whether that individual takes into account the number of contacts or their quality is irrelevant. For the cognitive process, it is important how good or applicable the individual believes their surroundings to be. Hence, in a final step to develop an understanding of social entrepreneurial social capital, this study limits itself to the perceived social capital of the individual.

To sum up the findings, this study looks at social capital on the individual, micro-level. It concerns the contacts this individual has and the resources these may offer. Hereby, the evaluation of the network potential is based on the individual's perception of the quality of its network. Hence, *social entrepreneurial social capital* is understood as the network of people and institutions surrounding the social entrepreneur, and the perceived level of support or other resources available from them.

3.2.3.1.2. The relevance of social capital in social entrepreneurial research to date

Due to its young age, social entrepreneurship research has not yet studied social capital in much depth. Specifically, while the importance of elements of social capital such as networks and institutional support are often mentioned, the studies with a greater or lesser focus on social capital consider it on a macro- or meso-level, and mostly have not yet tested their assumptions empirically.

Regarding *theoretical* approaches to the topic, the core message has been that relationships are of great importance for social entrepreneurs. McLeod Grant and Crutchfield (2007) name the nurturing of non-profit networks as one of the six practices of high-impact non-profits. They stress the importance of building alliances within the non-profit realm, working with instead of against each other, and taking collaborative, collective action to make change happen. Bloom and Dees (2008) urge social entrepreneurs to do the same, yet throughout their entire “ecosystem” (p. 46) including providers and customers. Bornstein and Davis name the people interacting with the social enterprise (Bornstein & Davis, 2010). Austin, Stevenson, and Wei-Skillern (2006) explain the reason for this accentuated role of social capital in social entrepreneurship. They argue that while large, high quality and diverse networks are relevant in all forms of

entrepreneurship, they are crucial in social entrepreneurship due to the lack of resources on the enterprises' side (also see Nga & Shamuganathan, 2010). Other than financially driven companies, social enterprises often rely on free or low-cost resources to be able to offer products to the socially needy at an acceptable price. This requires the support of resource-givers on numerous levels. While these findings help underline the relevance of social capital in social entrepreneurial intention formation, the insights are on a meso-level (also see Peredo & Chrisman, 2006) and cannot be directly applied to this study's individual-based concept of social entrepreneurial social capital. Other studies on economic development through social capital also lack direct applicability (e.g., Lyons, 2002). Two theoretical studies touch on social capital in the development of individual-based model of venture creation in social entrepreneurship. On the one hand, Mair and Noboa (2006) added social capital in the form of efficient networks as an antecedent to social entrepreneurial intentions, as discussed in Chapter 2.2.5. On the other hand, Guclu, Dees, and Anderson (2002) include "social assets" (p. 2) as a starting point in their model of social entrepreneurial opportunity recognition. They encourage individuals to focus on resources they possess or have access to to facilitate the idea development process. Social capital can be considered part of these social assets. Nonetheless, to date, besides accentuating its importance, there are no theoretical insights into the role of social entrepreneurial social capital in the creation of social entrepreneurial intentions.

On an *empirical* level, there is the same lack of findings specifically focused on social entrepreneurial intention formation, but individual studies analyse elements of social capital in different stages of social ventures. Maase and Dorst (2007) come to the conclusion that there are different types of relationships at different developmental levels of a social enterprise. Based on seven case studies, they show that at the beginning of a social enterprise, the dominant form of collaboration is the exchange of ideas and advice. Hereby, the optimism or pessimism of the social entrepreneur's network is often a guideline for the future development of the idea and discussions enhance the quality of solutions. Yet, at the same time, an existing social network proves irrelevant for the final decision to enter the social enterprise market in five of seven cases (Maase & Dorst, 2007). Looking at case studies of established fair trade companies, Davies and Ryals (2010) observe a propensity to seek partnerships with organisations that have

competencies other than those of the firm itself (structural social capital). At a relational level, the companies are more willing to work with parties they have a long relationship of trust with. In their longitudinal quantitative work on success factors in social entrepreneurship, Sharir and Lerner (2006) show that the given social network is the number one influence on the longevity of the social enterprise.²⁵ Likewise, Shaw and Carter (2007) identify network embeddedness as a differentiating factor of social entrepreneurship. While these empirical findings, again, are mostly located on a meso-level and are quite diverse, they are also suggestive of social entrepreneurial social capital having an influence on social entrepreneurial intention formation. It is, therefore, included in this study's model.

3.2.3.2. Social capital in business entrepreneurship

Social capital as a concept has influenced lines of thought not only in economics, but also in general management and specifically business entrepreneurship (A. R. Anderson & Jack, 2002; Ardichvili et al., 2003; Lyons, 2002). After discussing the advantages of social capital, especially in a management setting, previous findings in business entrepreneurship are portrayed, followed by an analysis of work relevant for the study of entrepreneurial intentions which is the aim of this study.

Social capital from a management perspective

Researchers are in agreement that social capital stems from social embeddedness in a network of contacts (Portes & Sensenbrenner, 1993), and that these contacts are established by investing in human relationships. They also paint a picture of its potential advantages which Manning, Birley, and Norburn (1989) attempt to group into four categories: "An active network provides four essential ingredients to the entrepreneur: support and motivation; examples and role models; expert opinion and counselling; and access to opportunities, information, and resources" (p. 72).²⁶ The latter group is the most

²⁵But, it must be noted that the evaluation is qualitative, and the ranking of the variables is based on the frequency of these variables in the case of successful ventures – regardless of their frequency in the case of not so successful ventures (e.g., 75% of the unsuccessful ventures also have a good social network).

²⁶For information on the other "ingredients", see the following sources: **opportunities:** Company and McMullen (2007); **information and knowledge exchange:** Baron and Markman (2000), Brüderl and Preisendörfer (1998),

frequently mentioned in literature to date. Personal discussions in the form of advice or encouragement are also noted (Carsrud et al., 1987; Maase & Dorst, 2007), for example, as support in controlling an otherwise hostile environment (Aarstad et al., 2009; Johannisson & Monsted, 1997). In addition, contacts with potential customers (Maase & Dorst, 2007) are added. Based on trust and acquaintance resulting from the network interaction (Baron & Markman, 2000), uncertainty is reduced and, hence, transaction costs lowered (Putman, Leonardi, & Nanetti, 1993). This is primarily due to simpler decision making (Groothaert & van Bastelaer, 2002). Overall, due to these various advantages, firms show higher levels of performance (Pirolo & Presutti, 2010) or innovation (Molina-Morales & Martínez-Fernández, 2010) if they have strong social capital. To illustrate research on the advantages of social capital, Casanueva and Gallego's (2010) study on university employees is highlighted. They look at how different dimensions of social capital affect subjects' innovativeness. Results demonstrate that while relational capital has a direct effect on innovativeness, structural capital only does so via resources. This means, that simply having a network does not enhance innovation – it is necessary to cultivate these relationships and receive access to relevant resources via these connections. While these general advantages can be applied to the establishment or running of a firm, they are less appropriate for the formation of founding intentions. Therefore, a further examination of social capital in business entrepreneurship is undertaken.

Social capital in business entrepreneurship studies

In general, entrepreneurship is facilitated when information is provided by a wide range of trustworthy personal contacts in a personal network (Johannisson, 1991; Reynolds, 1991). Here, not only direct contacts are important, but also numerous potential linkages to lawyers, bankers, venture capitalists, accountants, technical consultants, academics, customers, suppliers, or trade associations (Carsrud et al., 1987). As is the case for general social capital research, entrepreneurial ventures can gain specific advantages from these direct and indirect contacts. Besides improved funding from venture

Carsrud et al. (1987), Groothaert and van Bastelaer (2002), Nahapiet and Ghosal (1997), Reynolds (1991);
resources: Carsrud et al. (1987), Greve and Salaf (2003), Groothaert and van Bastelaer (2002), Maase and Dorst (2007), Ostgaard and Birley (1994).

capitalists (Baron & Markman, 2000), especially links to ventures' long term success are discussed. In qualitative research, Andersen and Jack (2002) learn that entrepreneurs see networking as important and critical to their success but cannot express how social capital comes about. Observations show that the interpersonal relationships developed because of genuine interest in the other and empathy with their experiences have the most potential. Yet, Carsrud, Gaglio, Olm, and Churchill's (1987) research on the effects of networks on female entrepreneurial success does not support the hypothesis that the extent of a woman's networks is linked to their businesses' success. They ask women to state (retrospectively) how many contacts had aided in the establishment of their venture. The data shows no significant difference between the strong and weak use of networks. Overall, findings of the positive influence of social capital in enterprises are varied.

Social capital in early stages of firm development

Moving further towards intention formation, research does demonstrate that social capital is especially important in the early phases of entrepreneurial ventures. Brüderl and Preisdörfer's (1998) literature review shows that most studies looking at social capital in business entrepreneurship focus on the founding phase, with individual studies branching into venture growth or success (e.g., Molina-Morales & Martínez-Fernández, 2010; Pirolo & Presutti, 2010). Looking at these early stages of business entrepreneurship on an individual level, Davidson and Honig's (2003) study social capital in nascent entrepreneurs. Their Swedish study shows that social capital is a strong and consistent predictor of entrepreneurial behaviour throughout various initial stages of venture creation. This is based on both encouragement from the close surroundings in the discovery phase as well as membership in business networks when it comes to initial business interactions. Greve and Salaff's (2003) multi-country study on the structural dimension of social capital in the early phases of venture creation underlines these findings. In the motivation phase, which represents the first steps towards entrepreneurship, these interactions are limited to the closest circle around the potential entrepreneur. The entrepreneurs seek a protective environment to test their thoughts. Similarly, Brüderl and Preisdörfer (1998) study the role of social capital in 1,700 ventures' survival and initial growth. Here, the effects of support from the close surroundings of the entrepreneur also showed the strongest effects on success. While

these studies show the relevance of social capital on an individual level in the initial phases of venture creation, its primary focus on structural aspects and firm- rather than intention formation limits its applicability to this study. The same can be said for Johannisson's (1998) study on entrepreneurs' personal networks in knowledge-based firms.

Social capital in intention formation

Based on the prior findings, it is likely that social capital will also positively effect the phase of intention formation in entrepreneurship. Specifically, social capital can assist potential entrepreneurs by enabling a wider support frame through advice and resource access (Davidsson & Honig, 2003). Contacts serve as a frame of reference, discussion partners, sources of information, potential suppliers, potential customers and personal backup in times of doubt. To date, Liñán delivers the most specific insights into the role of social capital in entrepreneurial intention formation. The most detailed work was done together with Santos (Liñán & Javier Santos, 2007) with whom he dedicates a paper to the analysis of this specific relationship. Based on the responses of 354 Spanish students, they test a model reflecting the effect of social capital on perceived desirability and feasibility regarding becoming an entrepreneur. They differentiate between "bonding" social capital – such as support from one's close surroundings and "bridging" social capital – meaning contact with the entrepreneurial environment. While all the elements of bonding social capital affect the perceived desirability of becoming an entrepreneur, only weak links appear towards the perceived feasibility. While support makes one have a more positive attitude towards self-employment, it does not seem to change one's perception of actually being able to become one. Bridging social capital, on the other hand, only shows an effect on perceived feasibility. Networks and support institutions, hence, generate trust in the feasibility of an entrepreneurial venture, but do not manage to alter peoples' perceptions of entrepreneurship. Overall, the study shows that on an individual level, social capital effects all identified direct antecedents of social entrepreneurial intentions, but that the effects are more differentiated than initially assumed. In a subsequent study, Liñán (2008) specifically looks at the influence of the support of one's close surroundings on antecedents of entrepreneurial intentions. Here, again, effects on ATB appear. Self-employment becomes more attractive when one's

close surrounding supports this career path. Yet, no effect is given on SN. The fact that one's surrounding would support an entrepreneurial venture does not create a social pressure to undertake one. Furthermore, support also shows significant effects on perceived entrepreneurial skills. Hence, the close environment's support leads people to believe they have more adequate abilities for an entrepreneurial career. Again, the effects of an element of social capital onto various antecedents of entrepreneurial intentions are shown.

Beside specific work on social capital, additional insights can be gained from looking into more general entrepreneurial intention models based on the theory of planned behaviour. As discussed in Chapter 3.1.4., the concept of SN is understood in diverse ways. Some authors, in fact, include subjects more related to this study's concept of social capital in their reflections on SN. Autio, Keeley, Klofsten, Parker, and Hay (2001), for example, measure SN on becoming an entrepreneur by inquiring about students' perceptions of the support they get from parts of their university, both through institutions and people. These aspects fall under this study's understanding of social capital. In Autio, Keeley, Klofsten, Parker, and Hay's (2001) study, they only have a weak effect on entrepreneurial intentions. Similarly, Walter and Walter (2008) measure the direct effect of students' expected support from their close surrounding regarding different aspects of entrepreneurship (e.g., financing) on their entrepreneurial intentions. Again, results are diverse, showing positive effects only for male students. These varied findings lead to assumptions that social capital does play a role in entrepreneurial intention formation, but that it may be of an indirect, rather than a direct nature.

In total, previous studies on entrepreneurial intentions including elements of social capital, and studies on early stages of entrepreneurship suggest that while there is a positive effect of social capital on entrepreneurial intention formation, the effect differs concerning different elements of the construct and is presumably of an indirect nature. They, therefore, confirm this study's previous assumptions that social entrepreneurial social capital does not directly affect social entrepreneurial intentions, but does so indirectly through the antecedents of ATB-SE, PBC-SE and/or SN-SE. This is further specified below. Additionally, differentiation between different elements of social capital is called for. This is done in the following sections.

3.2.3.3. Social capital in social entrepreneurship research

Based on literature review, three constructs of social entrepreneurial social capital are developed: perceived knowledge of institutions, perceived network, and perceived support. Perceived knowledge on institutions represents the bridging social capital, while network and support affect the bonding social capital. Bonding social capital is split between the general perceived network and perceived support to fortify the potentially important role of close personal support in the early stages of social venture creation. These constructs are illustrated in the following sections.

3.2.3.3.1. Perceived knowledge of institutions in social entrepreneurship

This study understands perceived knowledge of institutions as the familiarity with institutions supporting the establishment and growth of social enterprises. This familiarity encompasses a degree of use of or engagement with the service offered. This aspect falls under Granovetter's (2005) understanding of "weak" (p. 34) social capital, as it does not concern the close environment of the subject but the formal institutions with which they have rather sporadic contact. Institutions and local entities are traditionally considered a part of social capital (Cohen & Fields, 1999). In entrepreneurship literature, they are primarily discussed within university settings when analysing students' business entrepreneurial interests. Both Volkmann and Grünhagen (2010) as well as Fayolle and Degoerge (2006) dedicate large parts of their theoretical models to different aspects of institutional effects on students' entrepreneurial intentions, underlining their importance. Also, Gasse and Trembley (2006) assess Canadian students' knowledge of entrepreneurship support institutions, comparing the responses of the students with entrepreneurial ambitions to those without. Here, results are diverse, with entrepreneurially interested students showing lower levels of acquaintance with some institutions. The authors deduce that the programs must be of poor quality, as those entrepreneurially ambitious do not consider their offer to be relevant. Davidsson and Honig's (2003) results are similar, although they look at established businesses rather than students. They look at contacts to support agencies in their study of early stages of

Swedish enterprises, as part of their analyses of longevity and profitability. Here, results are weak or not significant. These authors also conclude that the service offering of the agency does not address the needs of the entrepreneur. Even though present empirical findings are weak, the perceived knowledge of institutions is included in this intentions model. On the one hand, various studies portray extensive theoretical work on the role of knowledge on institutions in entrepreneurial behaviour. This suggests it should show an effect in practice. On the other hand, this construct is important to include the non-personal, “weak” contacts into the broader concept of social entrepreneurial social capital. As both empirical studies mentioned above review specific services which seem to be of poor quality, this study will aim at understanding an amplified range of support institutions and focus on the perceived acquaintance subjects have with these.

3.2.3.3.2. Perceived network in social entrepreneurship

This study understands perceived network as a personal evaluation of the applicability of one’s network in becoming a social entrepreneur. This can be associated with strong or weak ties as it only matters how useful the person perceives their contacts to be, rather than if they belong to their close surroundings or not. This is in line with Müller (2008b) who states: “An entrepreneurial network can be built out of various intersections and different students could perceive the value of a network differently. Therefore, the students served as a source to assess the utility of the network” (p. 16). Her study shows that surrounding oneself with like-minded contacts improves antecedents of business entrepreneurial intentions. Networks have a special role in entrepreneurship as they are used to generate new ideas, pursue visions and collect resources, rather than simply reduce uncertainty as is the case in general management (Johannisson, 2000).

3.2.3.3.3. Perceived support in social entrepreneurship

This study understands perceived support as the expected encouragement and assistance of one’s close surroundings in becoming a social entrepreneur. This concept subsequently falls under the Granovetter’s (2005) idea of “strong” ties, which reflect interactions with the closest environment of the entrepreneur. Such active encouragement by friends or

family is one of the strongest indicators of initiating an entrepreneurial discovery process in Davidsson and Honig's (2003) Swedish study. Their further analysis shows this is especially important in the early stages, while formal contacts become more important as the venture progresses.

3.2.3.4. Hypotheses on the role of social entrepreneurial social capital in the model of social entrepreneurial intention formation

As deduced above, social entrepreneurial social capital presumably affects social entrepreneurial intentions indirectly via the antecedents of ATB-SE, PBC-SE and/or SN-SE. Concerning ATB-SE, previous work shows that business entrepreneurship as a career path becomes more attractive when one's surroundings support this career choice. The existence of connections to relevant players or institutions in the field of action could also put potential market entry in a more favourable light. Therefore, in line with Liñán and Santos (2007) and Liñán (2008), the model of social entrepreneurial intention formation assumes an effect of social entrepreneurial social capital on ATB-SE.

Regarding PBC-SE, people could find ventures more feasible if they know they have the support of the people around them and know the relevant actors in the field. While Liñán and Santos (2007) only show weak links for this effect, the assumption is corroborated by Autio, Keeley, Klofsten, Parker, and Hay (2001), Liñán (2008), and Müller (2008b). Therefore, the model of social entrepreneurial intention formation assumes an effect of social entrepreneurial social capital on PBC-SE.

Finally, SN-SE is presumably very tightly linked to social capital. First, many studies even mix the two, as explained above. Second, positive reinforcement from one's surroundings and the presence of facilitating institutions can create the vision of social expectance regarding the target behaviour. Even though Liñán (2008) shows no effects of the close environment's support on SN in business entrepreneurship, the linkage is included in the model. On the one hand, the present concept of social entrepreneurial social capital goes beyond the support of the close surroundings – other factors may also have a positive effect. On the other hand, Liñán and Santos (2007) see the effects of all elements of social capital on perceived desirability to which SN belongs. Hence, the

model of social entrepreneurial intention formation assumes an effect of social entrepreneurial social capital on SN-SE.

The hypotheses regarding the perceived knowledge of institutions are therefore:

***Hypothesis 3.1.:** Perceived knowledge of institutions has a positive effect on the attitude towards becoming a social entrepreneur*

***Hypothesis 3.2.:** Perceived knowledge of institutions has a positive effect on the perceived behavioural control on becoming a social entrepreneur*

***Hypothesis 3.3.:** Perceived knowledge of institutions has a positive effect on the subjective norms on becoming a social entrepreneur*

The hypotheses regarding the perceived network are therefore:

***Hypothesis 3.4.:** Perceived network has a positive effect on the attitude towards becoming a social entrepreneur*

***Hypothesis 3.5.:** Perceived network has a positive effect on the perceived behavioural control on becoming a social entrepreneur*

***Hypothesis 3.6.:** Perceived network has a positive effect on the subjective norms on becoming a social entrepreneur*

The hypotheses regarding the perceived support are therefore:

***Hypothesis 3.7.:** Perceived support has a positive effect on the attitude towards becoming a social entrepreneur*

***Hypothesis 3.8.:** Perceived support has a positive effect on the perceived behavioural control on becoming a social entrepreneur*

***Hypothesis 3.9.:** Perceived support has a positive effect on the subjective norms on becoming a social entrepreneur*

The developed hypotheses are graphically shown in Figure 16.

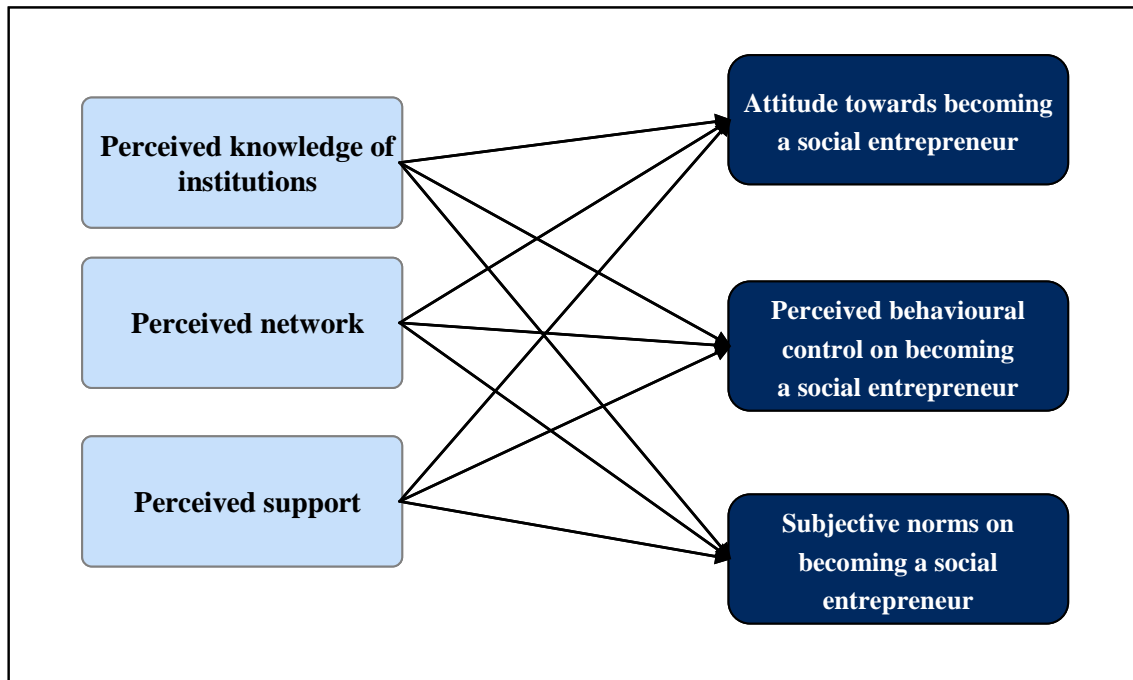


Figure 16: Hypothesized effects of social entrepreneurial social capital within the model of social entrepreneurial intention formation

3.2.4. Control variables in the model of social entrepreneurial intention formation

While the previously developed constructs encompass the main factors influencing the formation of social entrepreneurial intentions from the perspective of this study, it is nonetheless necessary to include further variables in the form of potential control variables. Amongst other functions, such a range of variables addresses Brännback, Krueger, Carsrud, and Elfving's (2007) concern that people with different backgrounds may tend to show different answer patterns. By including various control variables, the data collected can be split by demographics to test if these lead to a different perception of individual constructs or causal relationships within the model of social entrepreneurial intention formation.

The choice of control variables is seldom shown as a systematic process. As this study limits itself to the analysis of individual-based factors, demographics are considered as potential control variables. For this study, those variables are chosen which show relevance in existing studies in social or business entrepreneurship, or volunteering. These are the following variables:

- **Age**
- **Gender**
- **Experience**
- **Education**
- **Presence of role models**

While numerous other factors such as tenure, citizenship or religion (e.g., Lam, 2002; C. Lee & Green, 1991; Ruhle et al., 2010) are considered in intentional studies, the five selected control variables show the most frequent and theoretically-found appliance.

Several researchers suggest the importance of demographics and situational factors in intention formation, especially in the form of barriers or fostering factors (e.g., Audretsch & Stephan, 1999; Boyd & Vozikis, 1994; Murray & Graham, 2007; Scheiner, 2009; Shane & Khurana, 2003). Here, they are tested in having both direct as well as indirect effects. Hence, they are considered on the level of potential direct effects on social entrepreneurial intention, as well as on attitude-level TPB-constructs of the model.

3.2.4.1. Age

While age is included in numerous studies on business entrepreneurial intentions as a variable (e.g., Autio et al., 2001; Kolvereid & Isaksen, 2006; Liñán & Chen, 2007; Ruhle et al., 2010), the results have been diverse. While age has a significant direct effect on entrepreneurial intentions in Müller's (2008b) and Autio, Keeley, Klofsten, Parker, and Hay's (2001) studies, Goethner, Obschonka, Silbereisen, and Cantner (2009) cannot confirm this finding in their research. This discrepancy is also given within the realm of social entrepreneurship. Even though Dreesbach (2010) cannot detect an effect of age on the preference of becoming a social versus a business entrepreneur, theoretically, age is expected to have an effect on social entrepreneurial intentions. On the one hand, research in the area of prosocial behaviour show that prosocial actions increase as people mature (Grusec, 1991 as quoted by Penner et al., 2005). Stumbitz (2010) also sees social entrepreneurship as a great opportunity to integrate senior citizens into society and dedicates a working paper to supporting her line of argument. On the other hand,

statistics show that rather young people become entrepreneurs compared to other age groups (Harding, 2006). This tendency is also considered by Lévesque and Minniti (2006) for the area of business entrepreneurship. As age is frequently discussed as a possible influence on entrepreneurial behaviour, it is included as a control variable in the model of social entrepreneurial intention formation.

3.2.4.2. Gender

Gender is a frequently discussed factor, especially in business entrepreneurship. Various statistical evaluations show lower levels of females founding companies than males (Minniti et al., 2005; Utsch, 2004). However, the number is rising and causing an uptake in research on female entrepreneurship (Anna, Chandler, Jansen, & Mero, 2000; Birley, 1989; Brush, 1992; Carter, Williams, & Reynolds, 1997; Chaganti & Parasuraman, 1996; Fischer, Reuber, & Dyke, 1993; Mueller, 2004; Verheul, 2003). The general learnings from this work are that while the numbers of females in entrepreneurship are lower, it is unclear what the root of these differences is. Moving into the area of business entrepreneurial intentions, gender is often included as a variable within empirical studies (Boisson et al., 2006; Kolvereid & Isaksen, 2006; Kourilsky & Walstad, 1998; Liñán & Chen, 2007; Minniti & Nardone, 2007; Ruhle et al., 2010). Again, results are diverse. While Müller (2008b) and Soetanto, Pribadi, and Widyadana (2010in press) see no effect of gender on founding intentions, Veciana, Aponte, and Urbano (2005) and Scheiner (2009) see direct causal relationships between being a male and having entrepreneurial ambitions. Positive results dominate when gender is considered as affecting the antecedents of business entrepreneurial intentions, especially the attitude-level TPB-constructs: Goethner, Obschonka, Silbereisen, and Cantner (2009) measure higher levels of PBC in males, Singh and DeNoble (2003) see attitude-level differences, as do Walter and Walter (2008). Currently, a common idea is that men and women have diverse motivations concerning becoming entrepreneurs (Bennett & Dann, 2000; Bradley & Boles, 2003; DeMartino & Barbato, 2003; Orhan, 2001; Scheiner, 2009) – an assumption which underlines the importance of gender in entrepreneurial intention studies. Overall, in business entrepreneurship, males seem to have stronger intentions. Moving into the area of social activity, various studies on prosocial activity, have shown that women are

slightly more prone, e.g., to volunteering (Comunian & Gielen, 1995; Sector, 2001). Yet this finding cannot be generalized: in Penner and Finkelstein's (1998) study of volunteerism in the HIV/AIDS-area, for example, men show altruistic and other-oriented motivations to help, while women don't. But, the researchers believe this is a topic-specific phenomenon as many volunteers are homosexual men who are considered more able to identify with the people affected and, therefore, develop higher levels of empathy. Specifically for social entrepreneurship, first data shows similarly diverse results. While women are more likely to become social entrepreneurs than business entrepreneurs, statistically, there are more male social entrepreneurs in the UK (Harding, 2006). In her study on differences between social entrepreneurs and business entrepreneurs, Dreesbach (2010) comes to the conclusion that gender does have an effect on whether a person becomes a social or a business entrepreneur. It is 30% less likely that men will found a social enterprise if they found a business. When regarding all findings, it can be assumed that on the one hand, males will tend to find the entrepreneurial aspects of social entrepreneurship attractive, while women may find the social elements appealing. It is unclear which, if either, has a stronger effect. Therefore, gender is included as a control variable in our model of social entrepreneurial intention formation.

3.2.4.3. Education

The aspects of education and experience were previously discussed in Chapter 3.2.2. in the context of social entrepreneurial human capital. As mentioned, these variables are frequently included in business intentional models which is why they are also included as control variables of the model of social entrepreneurial intention formation.

There are two perspectives from which education is included in entrepreneurial studies. On the one hand, the level of education of the subjects is considered. While high levels of education have shown positive links to business entrepreneurship (Bates, 1990), Dreesbach's (2010) study shows a negative causal link between high levels of education and social entrepreneurship. This is surprising as research in general social behaviour shows that with rising education and income, social activity such as volunteering increases (Penner et al., 2005). Statistically, people in full-time education are also most

likely to engage in social entrepreneurial activity (Harding, 2006). This study considers the second perspective on education, which is the consideration of the participation in courses with relevance for entrepreneurship, or in this case, social entrepreneurship. The effectiveness of entrepreneurship courses is highly disputed. While some studies have failed to show causal links between entrepreneurship education and business entrepreneurial intentions (e.g., Ruhle et al., 2010), others show that participation does spark an additional interest in students. To avoid the bias of only entrepreneurially interested students visiting entrepreneurship courses, researchers like Müller (2008a) have compared founding intentions prior to and after course completion. These studies often show the positive effects of entrepreneurial education (Franke & Lüthje, 2004; Peterman & Kennedy, 2003; Pittaway & Cope, 2007; Souitaris et al., 2007; Walter & Dohse, 2009). These findings are taken into consideration by including education as a control variable in the model of social entrepreneurial intentions.

3.2.4.4. Experience

The role of experience in social and business entrepreneurship is also discussed in Chapter 3.2.2. It is a further demographic frequently applied in entrepreneurial intention models, and offers the same amount of diverse answers as the former variables. In general, it is important to differentiate between general work experience and specific entrepreneurship experience. Regarding the former, studies on opportunity recognition show that prior general work experience can enhance people's tool kits and make them more alert for entrepreneurial opportunities (S. Y. Cooper & Park, 2008). Yet, in Walter and Walter's (2008) study general work experience (measured in months) shows no effect, nor does Walter's study with Dohse (Walter & Dohse, 2009). Specific business experience has also shown negative results in business entrepreneurial research: both Teixeira and Forte (2009) and Soetanto, Pribadi, and Widyadana's (2010) cannot detect an effect on founding intentions. Yet, when it comes to prior entrepreneurial experience, results have been rather positive. Goethner, Obschonka, Silbereisen, and Cantner (2009) see a direct effect of previous founding efforts on students' entrepreneurial intentions, and Krueger and Isaksen (2006) include it as a significant control variable. This can also be confirmed in the realm of opportunity recognition (Ucbasaran, Westhead, & Wright,

2009). Studies considering experience as an indirect effect on entrepreneurial intentions also show initially weak, yet significant results (e.g., Kolvereid, 1996b; Liñán & Chen, 2007). Moving into the field of social entrepreneurship, experiences in socially affected areas could be necessary to develop the in-depth knowledge needed to effectively address social needs. In this sense, several authors mention a ‘trigger’ experience from the surrounding of the potential social entrepreneur which leads to the perception of a need (Chapter 3.2.2.). Therefore, prior social or business entrepreneurship experience as well as volunteering experience were included as control variables in the model of social entrepreneurial intention formation.

3.2.4.5. Role models

The final control variable, the presence of a role model, is another frequently disputed demographic element in entrepreneurial studies. In general, role models are expected to enhance intentions, as watching others perform a task may help build a positive and confident attitude towards the behaviour, especially if there are similarities between the observer and the observed person (S. Y. Cooper & Park, 2008). Hence, in most cases, the presence of a role model which engages frequently and successfully in the target behaviour is tested, mostly within the family or close social surrounding. When testing the direct effect of the presence of role model on business entrepreneurial intentions, results are diverse. While numerous studies show positive effects (e.g., Matthews & Moser, 1996; Soetanto et al., 2010; Van Auken, Fry, & Stephens, 2006; Walter & Dohse, 2009; Walter & Walter, 2008), just as many show no effect at all (e.g., Kolvereid & Isaksen, 2006; Teixeira & Forte, 2009; Tkachev & Kolvereid, 1999; Veciana et al., 2005). Kolvereid (1996b) believes these seemingly contradictory results are due to the perception of role models as direct, rather than indirect, effects of business entrepreneurial intentions. It is later confirmed that a row of studies detect a significant indirect effect of role models on business entrepreneurial intentions, e.g., via the attitude-level TPB-constructs (Kolvereid, 1996b; Krueger, 1993; Krueger & Carsrud, 1993; Liñán & Chen, 2007; Liñán & Javier Santos, 2007; Scherer et al., 1991). Positive effects of the presence of role models are also observed regarding social behaviour. For example, children are more likely to volunteer if their parents are active volunteers (Piliavin,

Grube, & Callero, 2002; Sundeen & Raskoff, 1995). While related traits such as empathy have not proven to be hereditary (M. H. Davis, Luce, & Kraus, 1994), these character traits of mothers are passed on to their children through role model behaviour (Eisenberg, Fabes, Guthrie, & Reiser, 2000). Hence, both from a business entrepreneurial and a social behavioural perspective, certain effects from the presence of role models on social entrepreneurial intention can be expected. It must be added that in a first application in the realm of social entrepreneurship, Dreesbach's (2010) study shows no effect of the presence of role models on the choice of becoming a social rather than a business entrepreneur. Nonetheless, it is not tested what effect it may have on becoming an entrepreneur in general. Overall, there are interesting lines of thought which may link the presence of role models to social entrepreneurship, so that they are included as a control variable in the model of social entrepreneurial intention formation.

3.3. The resulting model

As elaborated upon, the model of social entrepreneurial intention formation adapts the model of the TPB to social entrepreneurship. The model is further extended by antecedents of the attitude-level TPB-constructs, stemming from the areas of social entrepreneurial personality, social entrepreneurial human capital and social entrepreneurial social capital. Additionally, the control variables age, gender, experience, education, and presence of role models are included to ensure a correct verification of the model. The resulting proposed model of social entrepreneurial intention formation is shown in Figure 17.

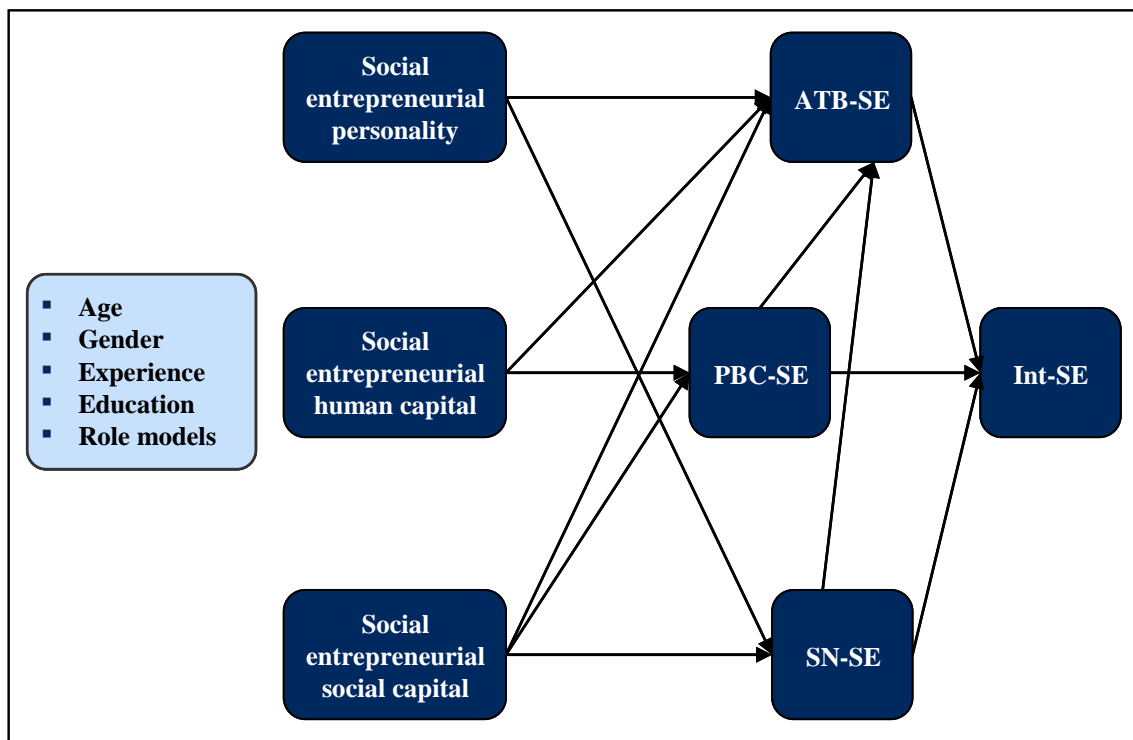


Figure 17: Suggested model of social entrepreneurial intention formation

4. Research method and statistical results

In this chapter, the operationalisation and verification of the model of social entrepreneurial intention formation are discussed. First, the research process is presented. Second, the model is operationalised, meaning the development of measures to present the given constructs. Third, the data obtained when applying the measures is presented. Fourth, and finally, the results of the subsequent multiple linear regressions are shown to test the hypotheses.

4.1. Research process

To test the model of social entrepreneurial intention formation, a questionnaire is developed to survey social entrepreneurial intentions and their potential antecedents. First, the content and creation of the questionnaire is discussed in detail.

4.1.1. Development of measures

In the following paragraphs, measurement development is portrayed. This includes the choice of sample, process of operationalisation, and data collection and cleaning.

Sample

Samples are a subgroup of an overall population which should represent the qualities of the overall population as accurately as possible (Bortz, 1999). Master-level business students are selected as a sample for the testing of the model of social entrepreneurial intention formation. Business students are potential entrepreneurs (Krueger et al., 2000). As Krueger, Reilly, and Carsrud (2000) explain, students reaching the end of their studies (as is the case of Master's students in their last year of study) face career decisions, have a broad range of ideas and attitudes, and although they may not have explicit business ideas, most have global attitudes regarding their future profession. Additionally, entrepreneurship mostly takes place when life changes occur (Shapero & Sokol, 1982) – which is the case when studies are completed. Due to these aspects, numerous researchers have successfully applied student samples when studying entrepreneurial intentions (Autio et al., 2001; Frank, Korunka, & Lueger, 2002; Franke & Lüthje, 2004; Goethner et

al., 2009; Guerrero et al., 2008; Krueger et al., 2000; S. Müller, 2008a; Ruhle et al., 2010; Sagiri & Appolloni, 2009; Soetanto et al., 2010). Nga and Shamuganathan (2010) also offer an additional overview of studies with student samples.

Operationalisation of the model

As suggested by Churchill Jr. (1979) and Verzat and Bachelet (2006), the questionnaire is constructed based on thorough literature research. Besides reviewing previous studies from the specific area of the TPB, sources from social entrepreneurship, business entrepreneurship, NPO and social psychological research are consulted. An initial questionnaire is applied in a pretest, as also done by Müller (2008a). Pretests are recommended when testing new scales (Churchill Jr, 1979). Pretests also offer the option to test various types of scales and improve the final measurement applied.

In December of 2009, 49 students from the course “Entrepreneurship & Marktentwicklung” at the Bergische University of Wuppertal took part in the pretest for this study. The pretest questionnaire was handed out, completed by the students and collected during the course. Students were also encouraged to give direct feedback on the comprehensiveness of the questionnaire. Based on the pretest, the questionnaire was refined. On the one hand, the qualitative comments were used to improve the understandability of the questions. On the other hand, statistical analyses of items and scales were used to select the final items for data collection. Hereby, while ensuring reliability and validity, the number of items in the scales was kept as small as possible to maintain a feasible length for students filling out the questionnaire. Figure 18 shows the process of operationalisation of the model.

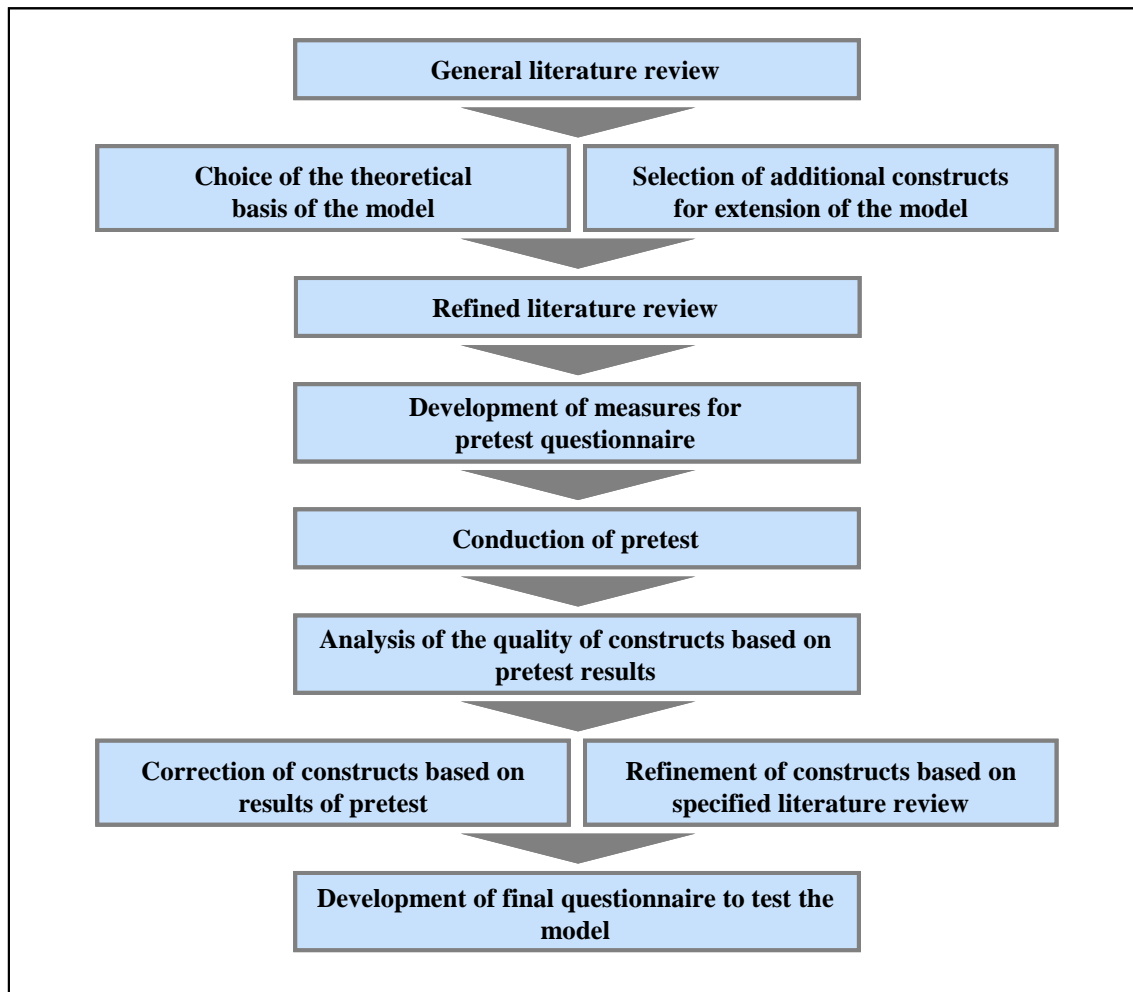


Figure 18: Operationalisation of the model

In its final form, the questionnaire included 83 questions or items, of which 18 were used to collect demographic data. Additionally, two texts were added on the first pages. First, a short note was included, thanking the students for their participation, explaining the background of the research, preparing them for the length of the questionnaire and ensuring the anonymous use of the data. Second, it contained a brief introduction to what the study understands social and business entrepreneurship to be. This seemed relevant due to the diverse definitions present to date (see Chapter 2.1.4.). It included a brief portrait of the two forms of entrepreneurship included in the study, the Spanish yoghurt producer “La Fageda” serving as an example of social entrepreneurship and Bill Gates as a business entrepreneur. These portraits were kept as neutral as possible, to avoid

preconceptions or preferences when filling out the questionnaire. The texts and the entire final questionnaire can be found in Appendix 2.²⁷

4.1.2. Data collection and cleaning

The final data collection with the final questionnaire took place in January 2011. Students from four German universities took part: the Bergische University of Wuppertal, TU Munich, Leuphana University Lueneburg, and the Berlin School of Economics and Law. Previous to data collection, professors were approached, asking them to support the research by letting students fill out the survey during class time – hereby ensuring very high participation rates. We asked students of the thereby selected business courses to complete the questionnaires which were handed out in paper form, typically at the beginning of their course. Filling out the questionnaire took about 10 minutes which had been the target during questionnaire development. No students refused to take part, leading to a participation rate of 100%, and 196 completed questionnaires. While the majority of the data was collected in this way, one course in Lueneburg could not be surveyed in class as their class period had already ended. Due to the fact that there were 150 students enrolled in that class and that the professor offered to send the survey to the class' mailing list via email, the survey was programmed online. Of these 150 students, 16 took part in the survey, leaving a participation rate of 10.7%. The online version of the questionnaire was kept as graphically similar as possible to the paper version. In total, 212 questionnaires were completed. Table 8 indicates the exact names of the courses, and the number of questionnaires collected.

²⁷ The original German questionnaire which was handed out is in Appendix 2., the English version is in Appendix 3.

University location	Course	Number of participants
Wuppertal	Human relationships management	59
	Entrepreneurial personality tutorial	24
Lueneburg	Entrepreneurship	16
	Marketing seminar	51
Munich	Entrepreneurship & Law	10
	Entrepreneurship seminar	14
	Marketing	22
Berlin	Entrepreneurship seminar	16

Table 8: Overview of university location and courses of participants

In a first step, the questionnaires were analysed based on data quality. Here, several criteria were taken into account

- The participant had to **fit into the target sample** of a business student at Master's level. Here, two participants proved to be doctoral students and were, therefore, eliminated from our sample.
- The **data sets had to be complete**. Therefore the percentage of missing values per participant was calculated. Two participants with more than 30% missing values were eliminated from the final data set.
- The **data in each questionnaire had to be consistent**. As the answers of each completed questionnaire were typed in by hand, the author could check if certain answering patterns were used (e.g., one-sided answering) or invalid data was included (e.g., aged 731 years). This was not the case with any of the paper questionnaires. The online questionnaires were also reviewed individually. Here, two questionnaires were eliminated due to inconsistency.
- Finally, even though **separate courses** were targeted, in the case of Wuppertal, three students took the questionnaire for a second time. Therefore, these three questionnaires were also not included in the final data set.

Overall, nine questionnaires were excluded, resulting in a final data set of 203 questionnaires. The sample size is adequate to run the intended statistical analyses of multiple linear regression. For each of the four regressions, in a rule of thumb, a minimum of five subjects (in this case, questionnaires) is needed per explanatory variable. The largest regression is that on the dependent variable ATB-SE, which includes 13 explanatory variables (here constructs, e.g., entrepreneurial personality). Hence, a minimum of 65 questionnaires is needed to test this multiple linear regression. Therefore, the 203 subjects in this analysis suffice. They even exceed the ratio of 15:1 of questionnaires to explanatory variables, which means the results can be generalized for a broad population. Other comparable studies such as that of Scheiner (2009) apply similar sample sizes. Figure 19 shows how the 203 subjects come about, and which universities they come from.

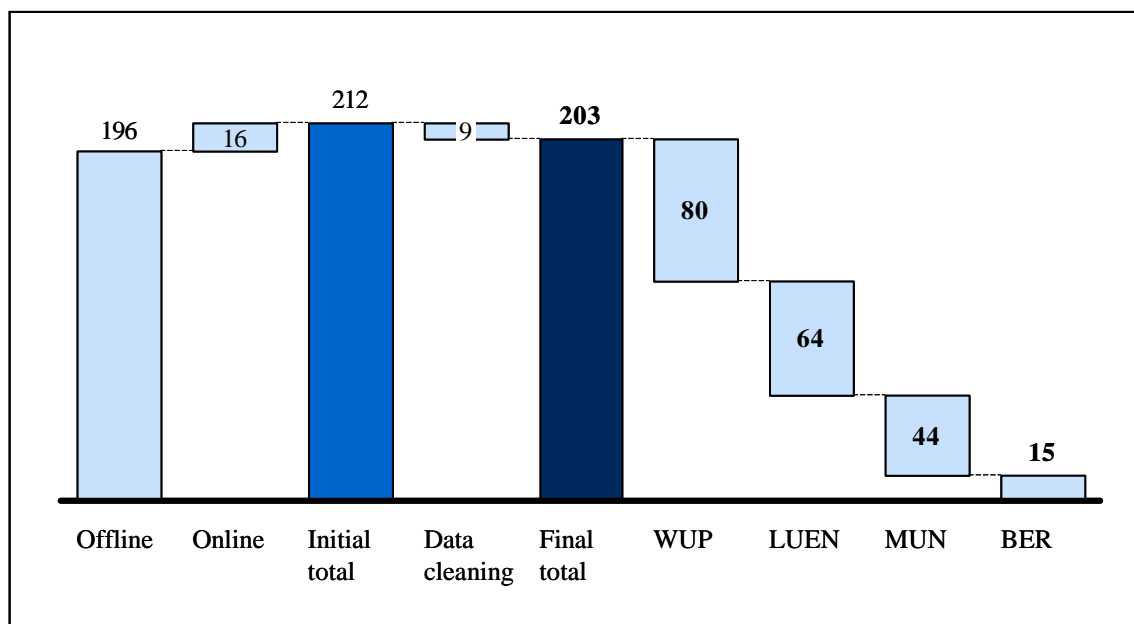


Figure 19: Composition and distribution of subjects by university in number of questionnaires²⁸

²⁸ WUP = Bergische University of Wuppertal; LUEN = Leuphana University of Lueneburg; MUN = TU Munich; BER = Berlin School of Economics and Law

4.1.3. Process of data analysis

Moving on to data analysis, three steps were taken: construct development, item quality analysis and multiple linear regressions. In the case of construct development, an initial factor analysis was run to obtain first indications of item groups.²⁹ After that, tests of reliability and validity were run for each construct, until its final configuration was obtained – based on Cronbach’s alpha, and checking single factor extraction within factor analysis. Once the constructs were completed, final values on validity and reliability were obtained – checking Cronbach’s alpha, single factor extraction, item discrimination and item-to-item correlation. Additionally, the quality of the items was tested based on the difficulty of the items, looking at the mean and standard deviation, and reviewing the graphic of data distribution. Passing these previous tests, constructs were ready for regressions to test each developed hypothesis. An overview of the tests applied can be found in Figure 20 and the related statistical criteria in Table 9.

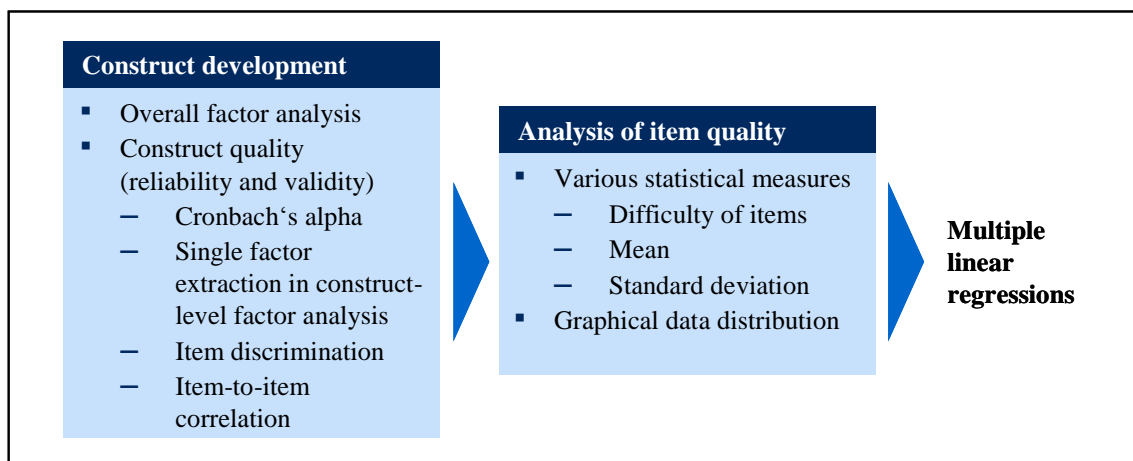


Figure 20: Steps of data analysis

²⁹ Throughout the thesis, factor analysis is run as varimax rotation in SPSS, as described in Backhaus, Erichson, Plinke, and Weiber (2003), Bortz (1999), Brosius (2008), and Janssen and Laatz (2007).

	Analysis	Criteria	Source/examples
Analyses per item	Mean	Subjective evaluation of value	Janssen & Latz (2007), Walter (2008)
	Standard deviation	Subjective evaluation of value	Janssen & Latz (2007), Walter (2008)
	Item difficulty	Item difficulty $.15 < p < .85$ (some $.20 < p < .80$)	Walter (2008)
	Graphical distribution	Check for double spikes	Walter (2008)
Analysis across all items	Confirmatory factor analysis	Initial indicator for association of items to constructs, based on factor loadings	Kolvereid & Isaken (2006), Goethner et al. (2009)
Analyses per construct	Validity	Subjective evaluation based on theoretical insights	Walter (2008)
	Reliability	Cronbach's alpha $\alpha > .70$ (acceptable $> .50$)	Churchill (1979), Walter (2008)
	Factor analysis	Extraction of a single factor, with high item-factor loadings ($> .50$)	Costello & Osborne (2005)
	Item discrimination	Corrected item-scale correlation of $> .20$ (some say $> .10$, others $.30$)	Marcus & Bühner (2009)
	Item-to-item correlation	Each item-to-item correlation $< .80$	Marcus & Bühner (2009)
	Mean	Subjective evaluation of value	Kolvereid & Isaken (2006), Ruhle et al. (2010)
	Standard deviation	Subjective evaluation of value	Kolvereid & Isaken (2006), Ruhle et al. (2010)

Table 9: Overview of data analyses performed previous to multiple regression analysis

As mentioned, having fulfilled all the relevant criteria, data was applied in multiple linear regression. Multiple linear regression is chosen as a statistical method to analyse the data due to methodical and content-driven advantages. On a methodical level, linear regression enables the use of metric data, both within the explanatory as well as the dependent variable (Backhaus et al., 2003; Brosius, 2008). In the case of the present data, this is given due to the use of Likert scales. On a content-level, linear regression is a statistical method used to confirm hypothesized causal relationships, rather than discover them (Backhaus et al., 2003). It, therefore, fits well when analysing previously developed models, like the model on social entrepreneurial intentions. In the case of more than one explanatory variable, it is called multiple linear regression (Backhaus et al., 2003).

Multiple linear regression's function is to describe and explain relationships between explanatory and dependent variables, where a relationship of cause and effect is assumed (Backhaus et al., 2003; Bortz, 1999). The application of multiple linear regression is the most popular method to test TPB hypotheses in entrepreneurship research (for some examples see Autio et al., 2001; Goethner et al., 2009; Kolvereid & Isaksen, 2006; S. Müller, 2008a; Ruhle et al., 2010; Singh & DeNoble, 2003; Walter, 2008). Therefore, it is the optimal tool to analyse the hypotheses developed on social entrepreneurial intention formation.

4.2. Measures

As mentioned previously, measures were developed based on extensive literature review and run through a pretest before being included in the final questionnaire. On the one hand, based on the complexity of the model, it was clear that the questionnaire would be quite large. On the other hand, participants' concentration and the quality of answers decreases if questionnaires are too long. Therefore, each scale was kept as short as possible – without compromising the validity or reliability of the constructs. Specifically, the following criteria were assessed: a scale as short as possible, ideally maintaining Cronbach's alpha over $\alpha = .70$ (Churchill Jr, 1979), retaining the relevant content.

Previously tested scales were adapted from existing studies. If several scales existed, the scale was chosen which fitted best concerning content and had good results in previous studies. If no scales existed, they were developed, based on the steps suggested by Churchill Jr. (1979). For the TPB, Volkmann and Grünhagen (2010) suggest two ways to develop items when studying a field previously untested with TPB. Referring to this study, one possibility is to adapt existing TPB items into social entrepreneurship-specific intention, ATB-SE, PBC-SE and SN-SE scales. Another is to use the same scales as previous studies, non-social entrepreneurial, and integrate the social entrepreneurship context in the dependent variable and the factors affecting ATB-SE, PBC-SE and SN-SE. This study adapted all constructs to social entrepreneurship, both independent and dependent, and chose those items best suited for the measurement of each construct. All scales were 5-point Likert scales. As mentioned in Chapter 2.2.5., the target behaviour in question is "becoming a social entrepreneur". As time references are needed when applying TPB, the additional range of "within five years after completing my studies" was added to the description of the target behaviour (Walter, 2008).

4.2.1. Dependent variables

4.2.1.1. Social entrepreneurial intentions

Reviewing previous studies on entrepreneurial intentions or general intentions within the TPB shows that there is no singular established measurement for intention (Liñán, 2008). Yet, a literature review shows different ‘types’ of intention scales.

Preference towards entrepreneurship vs. other career paths

One type of scale compares self-employment with other potential career options. Respondents are asked to state their preference regarding each path. The preference stated towards entrepreneurship is taken as an indicator for their intention to become an entrepreneur. Kolvereid (1996a), for example, asks “If you were to choose between running your own business and being employed by someone, what would you prefer?” the scale ranging from “1: would prefer to run my own business” to “7: would prefer to be employed by someone”, and uses the answer as an intention variable in his TPB model. Teixeira and Forte (2009) measure intention based on the question “Which option would you choose after completing your studies?”, with three possible answers: self-employment, employment or both.

Likelihood/probability of becoming an entrepreneur

A second type asks respondents to state the likelihood that they will become an entrepreneur. Lüthje and Franke (2003), for example, ask “What is the likelihood of becoming self-employed in the foreseeable future after graduation?” Likewise, Autio, Keeley, Klofsten, Parker, and Hay (2001) and Souitaris, Zerbinati, and Al-Laham (2007) ask “How likely is it [that you will pursue a career as self-employed]?”.

Singular items describing determination to become an entrepreneur

A third option looks at intentions based on items describing the perspective of the respondent on becoming an entrepreneur to which respondents agree or disagree. Liñán, Rodríguez-Cohard, and Guzmán (2008) uses several items along Likert scales, such as “I am ready to do anything to become an entrepreneur” or “My professional goal is to be an

entrepreneur”. Similarly, Müller (2008a) includes items such as “I strongly believe that I will start my own business within the first five years after finishing my studies”.

Ajzen suggests a battery of “I plan to...”, “I will...”, “I intend to...”

Finally, Ajzen (2002b) suggests a three-fold battery of items, which is a specification of the singular-items category above. Also using Likert scales, applied to the realm of entrepreneurship, the items are “I plan to become an entrepreneur”, “I will become an entrepreneur” and “I intend to become an entrepreneur”. In its original form, a seven-point scale is used. Numerous authors have adapted this scale, e.g., Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010) included the item “I intend to create a company someday in my life”, yet seldom have all three items been used.

Conditional vs. unconditional entrepreneurial intentions

Additionally, there is the option to choose a conditional or an unconditional form of intention. An example of a conditional version is the intentional variable chosen by Goethner, Obschonka, Silbereisen, and Cantner (2009): “If my research had economic potential, I would intend to participate in the founding of a firm to commercialize the former”. This form of variable takes into consideration the hurdle of lacking ideas, which many potential entrepreneurs perceive and which is believed to shape their intentions. However, the majority of studies include an unconditional intention variable.

In their meta-analysis, Armitage and Conner (2001) recognize two types of intention variables: self-prediction (similar to the category of likeliness) and intention (similar to Ajzen’s first item). They show that intentions are better predictors of behaviour than self-prediction. Due to these results from Armitage and Conner and the high results in reliability of Ajzen’s items (joint or individual) in previous studies (Cronbach’s alpha α between .75 and .90, e.g., Ruhle et al., 2010), Ajzen’s three items were chosen to be included in the pretest questionnaire. Additionally, conditional and unconditional variables were added. To compare results, business entrepreneurial intentions were included in the same format. Results of the pretest showed an extremely high Cronbach’s alpha ($\alpha = .90$ over all four items, $\alpha = .91$ with only unconditional items), suggesting that reducing the number of items may be feasible. Therefore, items were chosen for deletion based on their factor loadings (in factor analysis), leaving the single item of “I intend to become a social entrepreneur”, which showed the highest loadings. This is in line with

Armitage and Conner (2001) whose meta-analysis stressed the applicability of “I intend to..”-scales. Although single-item scales lead to less reliable results per se, they have proven successful for entrepreneurial intention measurement (e.g., Goethner et al., 2009; Kolvereid, 1996a; Lüthje & Franke, 2003).³⁰

To sum up, in the final questionnaire, one unconditional variable was included:³¹

I intend to become a social entrepreneur (Int-SE_01) (based on Ajzen, 2002b)

The same item is included for business entrepreneurial intentions:

I intend to become a business entrepreneur (EInt_01) (based on Ajzen, 2002b)

As these are single-item scales, there is no necessity for further data analysis. The mean and standard deviation are given in Chapter 4.3.2. within the descriptive analysis of the data.

4.2.1.2. Measurement of attitude towards becoming a social entrepreneur

As with entrepreneurial intention, there is no established measurement for the ATB-SE element of the TPB, including when it is used in the entrepreneurship realm. But, there are several identifiable battery types.

Bipolar scales

Some authors measure the attitude towards entrepreneurship based on bipolar scales. For example, Ajzen (2002b) suggests a scale with five semantic differentials, e.g., harmful -> beneficial (also applied by White, Thomas, Johnston, & Hyde, 2008). Similarly, Goethner, Obschonka, Silbereisen, and Cantner (2009) review respondents' opinions on the target behaviour based on bipolar scales, e.g., very boring -> very exciting.

³⁰ In this sense, Autio, Keeley, Klofsten, Parker, and Hay (2001) argue that single-item scales are no problem if validity is ensured and, hence, correlations with the scale are given. As this is the case, this single-item can be employed without concern.

³¹ The questionnaires were originally in German, as the student population who answered the questionnaire were German, and it is recommended that questionnaires are formulated in the mother tongue of the respondents (as done by Bönnte & Jarosch, 2010; Greve & Salaff, 2003; Hustinx et al., 2010). If necessary, the items were translated by the author for this thesis.

Direct attractiveness of entrepreneurship vs. other career paths

Another option is to ask respondents to express the attractiveness of entrepreneurship or other career options for them. Autio, Keeley, Klofsten, Parker, and Hay (2001), for example, ask subjects to state how attractive alternative career options are on a 5-point scale ranging from “1: not at all” to “5: highly”. In an extended version of their EIQ, Liñán and Chen (2007) ask respondents to indicate the levels of attractiveness to varying professional options “in the mean and long term, considering all advantages and disadvantages”, on a scale from “1: minimum attractiveness” to “7: maximum attractiveness”.

Evaluation of advantages/disadvantages of entrepreneurship

In varying forms, numerous researchers previously identify advantages and disadvantages of the target behaviour and ask respondents to state how important this is for them and also how likely they think this outcome will be if the target behaviour takes place. These outcomes are often previously identified using pretests of target groups (Krueger & Carsrud, 1993; Thorbjornsen et al., 2007). In this sense, Goethner, Obschonka, Silbereisen, and Cantner (2009) find four potential outcomes of entrepreneurship (e.g., higher personal income) and ask participants to rank how attractive this outcome is to them and how likely they find the outcome to be. Similarly, Müller (2008a) identifies advantages of self-employment and employment which she places in statements, e.g., “It is important to me to have a secure job”. These are then ranked on a Likert scale.

The majority of work identifies advantages and disadvantages of the target behaviour and develops items based on this. Yet, very high reliability has been shown in scales based on the general attractiveness of the target behaviour or its emotional evaluation in bipolar scales (e.g., White’s (2008) bipolar scales with $\alpha = .87$, Goethner, Obschonka, Silbereisen, and Cantner’s (2009) bipolar scales with $\alpha = .89$, or Liñán and his co-authors’ various statements on entrepreneurship or attractiveness scales with α ’s ranging from .897 (Liñán & Chen, 2009) to .904 (Liñán & Chen, 2007)). Overall, no clear path can be identified. Hence, numerous items were included in the pretest: Ajzen’s bipolar scales (Ajzen, 2002b), three successfully tested items from the EIQ (Liñán & Chen, 2007; Liñán & Chen, 2009) and an additional item from Guerrero, Rialp, and Urbano (2008) which wholly focuses on the attractiveness of becoming a social entrepreneur.

The results of the pretest showed a very high Cronbach's alpha ($\alpha = .92$), all loading on one factor in factor analysis, showing that the scale could be shortened. Hence, in the final questionnaire, a reduced version of Ajzen's (2002b) polar scales was included, the selection of items based on content and high factor loadings values in the pretest. Hereby, the coding was set so that the positive extreme of the scale was always on the right.

For me, becoming a social entrepreneur within five years after completing my studies is (based on Ajzen, 2002b):

Harmful -> beneficial (ATB-SE_02)

Unenjoyable -> enjoyable (ATB-SE_04)

Bad -> good (ATB-SE_05)

To ensure the inclusion of general attractiveness measures, the two highest loading items from the EIQ were also included:

Becoming a social entrepreneur implies more advantages than disadvantages to me (ATB-SE_06) (based on Liñán & Chen, 2009)

A career as a social entrepreneur is attractive to me (ATB-SE_07) (based on Liñán & Chen, 2009)

When all five items were included, the construct proved to have a high Cronbach's alpha of $\alpha = .84$. Yet, analysis showed that the reliability could be further improved if the item ATB-SE_06 was excluded. Reasons behind the bad fit of the item may be that it is misleading in the sense that it is unclear what kind of advantages and disadvantages are meant – for oneself, for one's surrounding, or for society in general. Also, compared to the other items it may be too impersonal. Therefore, the item was excluded from the scale, leaving four items. This construct has a Cronbach's alpha of $\alpha = .85$. Again, reliability could be further improved by leaving out the item ATB-SE_07. Excluding this item would leave only the bipolar items testing the attitude towards becoming a social entrepreneur. It seems that participants unexpectedly perceive the bipolar and the classical statements with Likert scales differently. Therefore, the scale cannot include items from both styles. Finally, the three bipolar items are left in the scale (ATB-SE_02, ATB-SE_04, ATB-SE_05) and result in a very good Cronbach's alpha of $\alpha = .87$, loading strongly on one factor in factor analysis, and explaining 79.7% of the variance within the

construct. The construct also passes all other data quality checks, as can be seen in Table 10 below.

	ATB-SE_02	ATB-SE_04	ATB-SE_05	Construct ATB-SE
Mean	3.29	3.59	3.46	3.45
Standard deviation	0.84	0.83	0.83	0.75
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.57	0.65	0.61	–
Loadings FA	0.877	0.871	0.929	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	79.7%
Item discrimination	0.725	0.715	0.826	–
Cronbach's alpha	–	–	–	0.87
Item-to-item correlation	–	–	–	all < .80

Table 10: Data quality within ATB-SE construct before linear regression

4.2.1.3. Measurement of perceived behavioural control on becoming a social entrepreneur

In the case of PBC-SE, there is also no established item battery (McGee et al., 2009) and, at the same time, Cronbach's alphas are generally lower than with the other elements of the theory of planned behaviour (about $\alpha = .70$).

As Armitage and Conner (2001) recognize in their meta-analysis, the construct of PBC-SE is not understood in a common way, a pitfall which is reflected in the diversity of measurements used. Previous entrepreneurial studies do not seem to distinguish between three different construct types:

- **Perceived behavioural control** (ease/difficulty of doing something)
- **Self-efficacy** (confidence in ability to do something)
- **Controllability** (what happens is up to me)

While all three construct types are interesting elements, they obviously refer to different things. Therefore, in light of the analysis of social entrepreneurial intentions, it is important to measure what the theoretical model assumes perceived behavioural control to be. Based on our understanding developed in Chapter 2.2.4.1., summarized as the “do-ability” of the target behaviour, the pretest includes measures for perceived behavioural control and selected items for controllability. This is in line with other studies which mix different construct types while analysing perceived behavioural control (e.g., Goethner et al., 2009; Ruhle et al., 2010). Hence, the pretest presented a mix.

The results were ambiguous, showing a low Cronbach’s alpha ($\alpha = .36$) and a split into multiple factors in factor analysis. This split underlines the difference between those items related to ‘easiness/confidence’ and those reflecting ‘controllability’. Yet, even when splitting the two constructs, reliability was not satisfying. Therefore, the literature review was extended, focusing on successfully tested batteries for integration into the final questionnaire. Eventually, the survey contained seven perceived behavioural control items, all on a Likert scale. Naturally, the items which tested well in the pretest were also included.

It would be easy for me to become a social entrepreneur (PBC-SE_02) (based on Autio et al., 2001; Liñán & Chen, 2009; S. Müller, 2008a)

I am sure I would be successful if I become a social entrepreneur (PBC-SE_01) (based on S. Müller, 2008a)

It is mostly up to me whether or not I become a social entrepreneur (PBC-SE_03) (based on Ajzen, 2002b)

I believe I could handle the creation of a social enterprise (PBC-SE_05) (based on Ruhle et al., 2010)

Another item was added from Liñán & Chen (2009):

If I tried to become a social entrepreneur, I would have a high probability of succeeding (PBC-SE_09) (based on Liñán & Chen, 2009)

An additional item was taken from Müller (2008a), as her scale tested well:³²

If I became a social entrepreneur, it would be very likely that my company would be successful (PBC-SE_10) (based on S. Müller, 2008a)

One additional controllability element was taken from the EIQ, as it tested well and had a high content fit:

I can control the creation process of a social enterprise (PBC-SE_08) (based on Liñán & Chen, 2009)

Applying the final data, reliability analysis shows that the removal of the factors PBC-SE_02 and PBC-SE_03 further improve the construct. They were, therefore, removed. The remaining five constructs reflected the ‘easiness/confidence’ aspect of PBC-SE. Table 11 shows the detailed data quality, leading to a very good reliability of Cronbach’s alpha $\alpha = .90$.

	PBC-SE_01	PBC-SE_05	PBC-SE_08	PBC-SE_09	PBC-SE_10	Construct PBC-SE
Mean	3.14	3.24	3.00	3.26	3.13	3.15
Standard deviation	0.93	0.99	0.94	0.90	0.94	0.79
Graphical distribution	ok	ok	ok	ok	ok	ok
Item difficulty (p)	0.53	0.56	0.50	0.57	0.53	–
Loadings FA	0.868	0.873	0.831	0.862	0.790	–
Number of factors extracted	–	–	–	–	–	1
Explained variance in FA	–	–	–	–	–	71.45%
Item discrimination	0.782	0.789	0.732	0.775	0.677	–
Cronbach's alpha	–	–	–	–	–	0.90
Item-to-item correlation	–	–	–	–	–	all < .80

Table 11: Data quality within PBC-SE construct before linear regression

³² The whole scale is not applied, as some elements did not reflect the understanding of the construct.

4.2.1.4. Measurement of subjective norms on becoming a social entrepreneur

As mentioned before, SN-SE are a much discussed element in the measurement of models based on the theory of planned behaviour. This is especially due to the fact that the previous effects and the reliability of measures of SN have been very low (Armitage & Conner, 2001). Therefore it is not surprising, that as with the other constructs, SN also have no established item battery. Once again, several types of scales are identified.

Ajzen's injunctive and descriptive norms

Ajzen (2002b) differentiates between injunctive and descriptive norms. Injunctive norms reflect whether people close to the subject approve of the target behaviour (e.g., "It is expected of me that I walk on a treadmill for at least 30 minutes each day in the forthcoming month" on a scale from extremely likely -> extremely unlikely), while descriptive norms show whether people close to the subject undertake the target action themselves (e.g., "Most people who are important to me walk on a treadmill for at least 30 minutes each day" on a scale from completely true -> completely untrue). As examples, Müller (2008a) and Goethner, Obschonka, Silbereisen, and Cantner (2009) adopt this approach.

Singular items

A second group of researchers use various items on a Likert scale, reflecting the perceived approval of the subject's closest surrounding towards the target behaviour. In this sense, looking at business entrepreneurial intentions, Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010) include three separate items such as "My family expects me to start my own business". Similarly, in an extended version of the EIQ, Liñán, Rodríguez-Cohard, and Rueda-Cantuche (2010) include statements such as "Many people consider it hardly acceptable to be an entrepreneur".

Likert scale on approval/disapproval of different groups

A third type of scale uses statements regarding target behaviour approval, but differentiates the answer concerning separate social groups close to the respondent. For example, the EIQ asks subjects to state the approval they expect to receive if they create a firm, collecting a separate statement for "your close family", "your friends" and "your colleagues" (Liñán & Chen, 2009).

In creating the scale, for this study Armitage and Conner (2001) are taken into consideration who advise researchers to use multi-item scales to test SN, aiming at obtaining improved statistical results. Nonetheless, the studies reviewed showed only mediocre reliabilities for their subjective norm constructs, e.g., Goethner, Obschonka, Silbereisen, and Cantner (2009) achieved values of $\alpha = .68$ for injunctive and $\alpha = .64$ for descriptive norms. As the third scale type showing approval of different groups towards the target behaviour showed higher levels of reliability (e.g., $\alpha = .773$ in Liñán & Chen, 2009), they were chosen for the pretest. Individual statements on Likert scales for injunctive and descriptive norms were also included. While the resulting Cronbach's alpha α in the pretest was sufficient ($\alpha = .72$), two factors appeared in factor analysis which could not be explained with regard to content. Reducing the scale to the approval scale of different groups maintained the good Cronbach's alpha (again, $\alpha = .72$) and led to one extracted factor in factor analysis. However, important content could have been lost by reducing the analysis to this singular type of scale. Therefore, an extended literature review was undertaken, focusing on finding studies with significant scales of subjective norms.

In the end, the scale included the approval scale of different groups from EIQ (Liñán & Chen, 2009), in which the group of 'colleagues' was replaced by 'fellow students' as students were the target audience. Additionally, the test included four Likert scale items, which had previously tested successfully in Greenslade and White (2005), Hrubes, Ajzen, and Daigle (2001) and Müller (2008a).

If you decided to become a social entrepreneur, would people in your close environment approve of that decision? (based on Liñán & Chen, 2009) Indicate from 1 = total disapproval to 5 = total approval.

Your close family (SN-SE_01)

Your friends (SN-SE_02)

Your fellow students (SN-SE_03)

Those people who are important to me would want me to become a social entrepreneur (SN-SE_07) (based on Greenslade & White, 2005)

Those people who are important to me think I should become a social entrepreneur (SN-SE_08) (based on Hrubes et al., 2001; S. Müller, 2008a)

Most people important to me would approve of my becoming a social entrepreneur (SN-SE_09) (based on Greenslade & White, 2005; Hrubes et al., 2001)

The people important to me would think it was desirable if I became a social entrepreneur (SN-SE_10) (based on Greenslade and White 2005)

While the resulting Cronbach's alpha for SN-SE was very high compared to previous studies with $\alpha = .83$, factor analysis again extracted two factors. The split occurred between those items on the Likert scale (SN-SE_07, SN-SE_08: SN-SE_09, SN-SE_10) and those items on the approval-disapproval scale (SN-SE_01, SN-SE_02, SN-SE_03). This shows that other than expected, the subjects applied the Likert scales differently from the approval-disapproval scale, most likely positioning the perceived "zero" value in a different position. Therefore, the items could not be placed in a joint construct. Evaluating the constructs separately, the approval-disapproval scale showed better values. Hence, the study applied this scale to measure SN-SE.

Within the SN-SE construct, the data quality was high (Table 12), and resulted in a reliability of $\alpha = .81$.

	SN-SE_01	SN-SE_02	SN-SE_11	Construct SN-SE
Mean	3.77	3.79	3.51	3.69
Standard deviation	0.91	0.82	0.86	0.74
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.69	0.70	0.63	–
Loadings FA	0.822	0.909	0.827	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	72.88%
Item discrimination	0.610	0.764	0.612	–
Cronbach's alpha	–	–	–	0.81
Item-to-item correlation	–	–	–	all < .80

Table 12: Data quality within SN-SE construct before linear regression

4.2.2. Independent variables

4.2.2.1. Measurement of social entrepreneurial personality

As discussed, social entrepreneurial personality is a new construct. As it is based on two subconstructs of entrepreneurial personality and prosocial personality, previous studies in these areas are assessed to create measures for the questionnaire.

4.2.2.1.1. Measurement of entrepreneurial personality

As elaborated in model development, the entrepreneurial personality is built up of the elements of risk-taking propensity, innovativeness, proactiveness, need for achievement and need for independence. These constructs have been tested in numerous ways in previous research, ranging from short one-item scales (e.g., Bönke & Jarosch, 2010) to entire questionnaires and studies focusing on one sole subconstruct (e.g., B. R. Johnson, 1990 for the need for achievement).

In a pretest, the three constructs of risk-taking propensity, innovativeness and proactiveness were successfully tested using single-item scales (previously used in Bönnte & Jarosch, 2010), so that these were also used in the final data collection:

In general, I am willing to take risks (SEPer_Risk_01) (Bönnte & Jarosch, 2010)

I am an inventive person who has ideas (SEPer_Inn_01) (Bönnte & Jarosch, 2010)

If I see something I do not like, I change it (SEPer_Proact_01) (Bönnte & Jarosch, 2010)

Regarding need for achievement and need for independence, the pretest included multi-item scales (based on Shetty, 2004; Utsch, 2004; Walter, 2008). Yet, results showed that also in the case of these scales, the choice of single item measures lead to the best possible result, also in regard to the joint construct entrepreneurial personality. Therefore, the item was chosen which loaded highest in a separate factor analysis for each construct.

I think it's important to work more than others (SEPer_NAch_02) (Utsch, 2004)

I get excited by creating my own work opportunities (SEPer_NInd_06) (Shetty, 2004)

In line with Bönnte and Jarosch (2010), all elements are believed to belong to a cluster of traits forming the multivariate construct of the entrepreneurial personality. Therefore, they are all included in one scale as unweighted items (also done by Caird, 1991). The subsequent results of the analysis reflect the use of shortened scales, but they are in a realm in which the values can be accepted. Over all items, Cronbach's alpha resulted in $\alpha = .65$, extracting one factor in factor analysis, showing how the elements are small parts of the large construct of the entrepreneurial personality.

The results of data quality testing are shown in Table 13. While reliability is slightly low, shortly missing the standard cut-off of $\alpha = .70$, analysis shows that no item is out of place. Overall it seems that the construct may lack depth and additional items would have further brought out its full range – a risk taken to attempt to keep the questionnaire as short as possible. Nonetheless, the construct is maintained, as all further data quality is above the given thresholds, and reliability under $\alpha = .70$ can be accepted in new scales with a low number of items (Churchill Jr, 1979).

	SEPer_ Inn_01	SEPer_ NACH_02	SEPer_ NInd_01	SEPer_ Proact_01	SEPer_ Risk_01	Construct SEPer_ Entr
Mean	3.35	3.14	3.83	3.60	3.53	3.49
Standard deviation	1.03	1.14	0.89	0.75	0.97	0.62
Graphical distribution	ok	ok	ok	ok	ok	ok
Item difficulty (p)	0.59	0.54	0.71	0.65	0.63	–
Loadings FA	0.683	0.585	0.774	0.490	0.697	–
Number of factors extracted	–	–	–	–	–	1
Explained variance in FA	–	–	–	–	–	42.7%
Item discrimination	0.422	0.354	0.539	0.289	0.448	–
Cronbach's alpha	–	–	–	–	–	0.65
Item-to-item correlation	–	–	–	–	–	all < .80

Table 13: Data quality within entrepreneurial personality construct before linear regression

4.2.2.1.2. Measurement of prosocial personality

Based on studies predominantly in the area of social psychology, detailed scales have been used to test the phenomena of the prosocial personality or its elements (e.g., Penner et al., 1995). As previously elaborated, besides regarding a prosocial personality as a whole, some researchers take into account the individual areas of empathy and social responsibility. Therefore, the pretest included two alternative options from previous research: items for general prosocial orientation (based on Scales & Benson, 2003) and items regarding the separate aspects of empathy (based on Loewen, Lyle, & Nachshen, n.d.) and social responsibility (based on Bierhoff & Schülken, 1999).

Here, the idea of a prosocial personality based on the two subconstructs of empathy and social responsibility showed the best results in a pretest. Therefore, two separate scales were developed for the final questionnaire.

Empathy

To measure empathy, Wakabayashi et al. (2006) developed a 60-item scale, which included both affective and cognitive items. To reduce complexity, Loewen, Lyle, and

Nachshen (n.d.) shortened the scale to eight items, those which loaded highest in Wakabayashi et al.'s work. Of these items, the four affirmative ones were included in our pretest. Results of the pretest showed that three of the items reflected the empathy construct. Therefore, these were included in the final questionnaire.

Other people tell me I am good at understanding how they are feeling and what they are thinking (SEPer_Emp_02) (Loewen et al., n.d.)

I am good at predicting how someone will feel (SEPer_Emp_03) (Loewen et al., n.d.)

I can tell if someone is masking their true emotion (SEPer_Emp_04) (Loewen et al., n.d.)

The three items load onto one factor, giving a solid alpha of $\alpha = .78$ and extracting one factor. Further results of data quality testing are shown in Table 14.

	SEPer_Emp_02	SEPer_Emp_03	SEPer_Emp_04	Construct SEPer_Emp
Mean	3.77	3.72	3.62	3.71
Standard deviation	0.93	0.77	0.78	0.69
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.69	0.68	0.66	–
Loadings FA	0.819	0.871	0.814	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	69.7%
Item discrimination	0.595	0.678	0.582	–
Cronbach's alpha	–	–	–	0.78
Item-to-item correlation	–	–	–	all < .80

Table 14: Data quality within empathy construct before linear regression

Social responsibility

To measure social responsibility, the pretest included a scale successfully applied by Bierhoff and Schülken (1999)³³. Due to the high reliability shown in the results of the pretest ($\alpha = .92$), a reduced number of items was transferred into the final questionnaire to keep it as short as possible. The final three items were chosen based on the relevance of their content and high factor loadings.

I want to support people who have no lobby or social support (SEPer_SoRe_02)
(Bierhoff & Schülken, 1999)

I would like to show solidarity for groups in need (SEPer_SoRe_04) (Bierhoff & Schülken, 1999)

I want to create social change (SEPer_SoRe_05) (Bierhoff & Schülken, 1999)

The three items load onto one factor, giving a good reliability of $\alpha = .82$. Table 15 shows the overall results.

	SEPer_SoRe_02	SEPer_SoRe_04	SEPer_SoRe_05	Construct SEPer_SoRe
Mean	3.17	3.08	3.47	3.24
Standard deviation	0.99	1.06	0.89	0.84
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.54	0.52	0.62	–
Loadings FA	0.878	0.843	0.855	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	73.7%
Item discrimination	0.707	0.653	0.668	–
Cronbach's alpha	–	–	–	0.82
Item-to-item correlation	–	–	–	all < .80

Table 15: Data quality within social responsibility construct before linear regression

³³ The author excluded one item, as it was phrased specifically for volunteers, not students.

4.2.2.2. Measurement of social entrepreneurial human capital

As in the case of anterior construct, social entrepreneurial human capital is a new construct. The previous literature review suggests that there may be two subconstructs: social entrepreneurial skills, on the one hand, and social entrepreneurial knowledge/experience, on the other. Interestingly enough, there has been very little research with regard to skills or knowledge in previous entrepreneurial intentional studies so that there is a lack of pretested scales or items. To develop new scales, numerous potential items entered into the pretest, of which some were self-developed and others adapted from previous related questionnaires. Both for skills and knowledge/experience, items were developed inspired by ideas from Chen, Greene, and Crick (1998), Anna, Chandler, Jansen, and Mero (2000), Singh and DeNoble (2003), Kolvereid and Isaksen (2006), Guerrero, Rialp, and Urbano (2008) and Liñán (2008). One specific source of input are selected PBC-items which focus on self-efficacy, an aspect related to our concept of social entrepreneurial skills rather than our understanding of PBC-SE (e.g., Liñán et al., 2010).

While the pretest resulted in a clear split between skills and knowledge/experience in factor analysis, it showed mediocre reliability results for the resulting constructs. Therefore, further analyses reviewed the concepts separately and only the items which had succeeded in other empirical work were included in the final questionnaire.

4.2.2.2.1. Measurement of perceived social entrepreneurial skills

To measure the perceived social entrepreneurial skills overall, the questionnaire included a self-evaluation of the subjects' existing skill level:

I have the skills and capabilities required to succeed as an entrepreneur (SEHC_Skill_03) (based on Autio et al., 2001)

Additionally, the perceived level of individual relevant skills was further specified. As previously elaborated, skills are needed on two levels to act as a social entrepreneur: on the levels of acting entrepreneurially and acting prosocially.

Concerning entrepreneurial skills, the author developed a scale based on the relevant entrepreneurial skills suggested by Liñán (2008). The question phrasing was based on Guerrero, Rialp, and Urbano (2008):

How confident are you that you have the skills needed about your skills necessary to become when becoming a social entrepreneur? Please indicate your level of agreement with to the following statements. I am good at...

- *recognizing opportunities (SEHC_Skill_04)*
- *working creatively (SEHC_Skill_05)*
- *problem solving (SEHC_Skill_06)*
- *developing new products and services (SEHC_Skill_07)*
- *leading teams (SEHC_Skill_08)*
- *networking (SEHC_Skill_09)*

The same question was posed regarding prosocial skills. Here, a self-developed skill set was applied based on helping skills, as they are identified by Hill (2009) in her three stage model of helping.

- *establishing trust (SEHC_Skill_10)*
- *listening to people (SEHC_Skill_11)*
- *explaining things (SEHC_Skill_12)*
- *fostering awareness (SEHC_Skill_13)*
- *putting plans into action (SEHC_Skill_14)*

In this case, the skill construct is built up differently than expected. When running a factor analysis on the skill items, it shows three different factors. These can be understood as leadership (SEHC_Skill_06, SEHC_Skill_08, SEHC_Skill_12, SEHC_Skill_13, SEHC_Skill_14), creativity (SEHC_Skill_04, SEHC_Skill_05, SEHC_Skill_07) and personal relationships (SEHC_Skill_09, SEHC_Skill_10, SEHC_Skill_11).

Skill leadership

Some work in the area of social entrepreneurship mentions relevant leadership skills in social entrepreneurs. Elkington and Hartigan (2008) name them as part of a social entrepreneur's personality. Waddock and Post (1991) also name the ability to gain followers' commitment as a central ability of social entrepreneurs. Thompson (2000) mentions communication abilities and talent in recruiting resources.

The **leadership** construct shows good results with a Cronbach's alpha of $\alpha = .71$ and further successful data checks as shown in Table 16.

	SEHC_ Skill_06	SEHC_ Skill_08	SEHC_ Skill_12	SEHC_ Skill_13	SEHC_ Skill_14	Construct Skill L
Mean	3.88	3.83	3.82	3.77	3.95	3.85
Standard deviation	0.73	0.86	0.87	0.79	0.75	0.54
Graphical distribution	ok	ok	ok	ok	ok	ok
Item difficulty (p)	0.72	0.71	0.70	0.69	0.74	–
Loadings FA	0.763	0.731	0.665	0.569	0.675	–
Number of factors extracted	–	–	–	–	–	1
Explained variance in FA	–	–	–	–	–	46.7%
Item discrimination	0.560	0.528	0.440	0.363	0.454	–
Cronbach's alpha	–	–	–	–	–	0.71
Item-to-item correlation	–	–	–	–	–	all < .80

Table 16: Data quality within skill leadership construct before multiple regression

Skill creativity

Creativity is a skill set often mentioned in entrepreneurship studies (e.g., Sarasvathy, Dew, Velamuri, & Venkataraman, 2003). Here the creativity construct shows good results with an alpha of $\alpha = .72$ and extracting one factor in factor analysis. Further values are in Table 17.

	SEHC_Skill_04	SEHC_Skill_05	SEHC_Skill_07	Construct SEHC_SkillC
Mean	3.52	3.67	3.63	3.61
Standard deviation	0.79	0.95	0.96	0.73
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.63	0.67	0.66	–
Loadings FA	0.647	0.839	0.901	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	64.5%
Item discrimination	0.377	0.583	0.703	–
Cronbach's alpha	–	–	–	0.72
Item-to-item correlation	–	–	–	all < .80

Table 17: Data quality within skill creativity construct before linear regression

Skill personal relationships

As described in Chapter 3.2.3.3.2., networks are an important aspect of social entrepreneurship. To build and maintain them requires networking and people skills. These are represented in the skill **personal relationships** construct. This construct shows acceptable results with a Cronbach's alpha of $\alpha = .64$. Again, in this case the low reliability can be accepted, due to the newness of the construct and the low number of items (Kolvereid, 1996b; Walter, 2008). Future development of this scale should recognize this. Further data quality results are in Table 18.

	SEHC_Skill_09	SEHC_Skill_10	SEHC_Skill_11	Construct SEHC_Skill P
Mean	3.80	4.06	4.11	3.99
Standard deviation	0.90	0.72	0.79	0.62
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.70	0.76	0.78	–
Loadings FA	0.730	0.879	0.697	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	59.7%
Item discrimination	0.398	0.631	0.361	–
Cronbach's alpha	–	–	–	0.64
Item-to-item correlation	–	–	–	all < .80

Table 18: Data quality within skill personal relationships construct before linear regression

4.2.2.2.2. Measurement of perceived social entrepreneurial knowledge/experience

Similarly, to measure the perceived social entrepreneurial knowledge/experience overall, the questionnaire included a self-evaluation of the subjects' existing knowledge and experience levels:

I have the necessary knowledge (information) to succeed as a social entrepreneur (SEHC_Know_03) (item phrasing based on Autio et al., 2001)

I have expertise in starting up a social enterprise (SEHC_Exp_01) (Chandler et al., 2003)

I am an expert at launching a social enterprise (SEHC_Exp_02) (Chandler et al., 2003)

To further complement the aspect of knowledge, items from EIQ (Liñán & Chen, 2009) were adapted to form two further item:

I know a lot about the social problem my social enterprise would address (SEHC_Know_04)

I know a lot about the founding of an enterprise (SEHC_Know_05)

The knowledge/experience construct shows acceptable results, with a Cronbach's alpha of $\alpha = .74$. While the construct could be further improved by removing SEHC_Know_04, it is included due to the relevance of its content for analysis. All items also load highly onto one factor. One item is below a given threshold: Item difficulty of SEHC_Exp_02 is $p = .11$, and, therefore, below the target value of $p = .15$. As indicated above, studies have tolerated values of $p > .10$. As all additional data tests are successful, the item is maintained within the construct. Additional data quality checks are in Table 19.

	SEHC_Exp_01	SEHC_Exp_02	SEHC_Know_03	SEHC_Know_04	SEHC_Know_05	Construct KnowExp
Mean	2.07	1.44	2.37	2.66	2.98	2.29
Standard deviation	1.00	0.78	1.09	1.12	1.14	0.72
Graphical distribution	ok	ok	ok	ok	ok	ok
Item difficulty (p)	0.26	0.11	0.34	0.41	0.49	–
Loadings FA	0.850	0.782	0.760	0.554	0.603	–
Number of factors extracted	–	–	–	–	–	1
Explained variance in FA	–	–	–	–	–	51.6%
Item discrimination	0.677	0.596	0.564	0.362	0.403	–
Cronbach's alpha	–	–	–	–	–	0.74
Item-to-item correlation	–	–	–	–	–	all < .80

Table 19: Data quality within knowledge/experience construct before linear regression

4.2.2.3. Measurement of social entrepreneurial social capital

As discussed, social capital will be regarded based on perceived knowledge on support institutions, existing network and support from one's surrounding. The pretest already showed good results for each construct. To enable a shorter questionnaire, a reduced set of items was taken into the final questionnaire, but reliability was ensured. First, all items measuring social capital were put in one analysis. A good Cronbach's alpha of $\alpha = .84$ was obtained, showing the link between these different items. At the same time, the overall factor analysis resulted in four factors – exactly those two subconstructs of

knowledge on institutions and network and the construct of support split into two: financial support and other support. The contents are explained in the following sections.

4.2.2.3.1. Measurement of perceived knowledge on institutions

Numerous studies mention different types of institutions and their specific forms of help, mostly without specifically pointing out the role of institutions. Autio, Keeley, Klofsten, Parker, and Hay (2001), for example, include the item “there is a well-functioning support infrastructure in place to support the start-up of new firms” as part of his subjective norms scale. Davidsson and Honig (2003) ask if subjects seek assistance from support institutions in general. Gasse and Trembley (2006) go a step further, name a list of existing support institutions and ask students if they know of them. Liñán, Rodríguez-Cohard, and Rueda-Cantuche (2010) further specify, naming different support functions and ask students to indicate their level of knowledge of these, ranging from “1: absolute ignorance” to “7: complete knowledge”. The pretest included a five-item scale adapted from Liñán, Rodríguez-Cohard, and Rueda-Cantuche (2010). Due to the high resulting reliability in the pretest ($\alpha = .91$), the construct could be further reduced. Finally, the questionnaire included three items to test their perceived knowledge of institutions.

Please indicate how well you know the following business associations and support bodies (ranging from 1: not at all to 5: very well) (based on Liñán et al., 2010):

- *Specific training social entrepreneurs and/or entrepreneurs (e.g., specific workshops) (SESC_Inst_02)*
- *Financial institutions specializing in funding social entrepreneurs and/or entrepreneurs (e.g., venture capitalists) (SESC_Inst_03)*
- *Business centres or incubators, which assist social entrepreneurs and/or entrepreneurs to meet and exchange ideas (e.g., entrepreneurship centre at a university) (SESC_Inst_05)*

The subconstruct of perceived knowledge on institutions worked well, resulting in a Cronbach’s alpha of $\alpha = .78$. Table 20 shows further results.

	SESC_ Inst_02	SESC_ Inst_03	SESC_ Inst_05	Construct SESC_Inst
Mean	2.16	2.45	2.20	2.27
Standard deviation	1.13	1.27	1.13	0.98
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.29	0.36	0.30	–
Loadings FA	0.814	0.880	0.811	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	69.8%
Item discrimination	0.592	0.696	0.588	–
Cronbach's alpha	–	–	–	0.78
Item-to-item correlation	–	–	–	all < .80

Table 20: Data quality within institution construct before linear regression

4.2.2.3.2. Measurement of perceived network

As discussed previously, the literature shows networks as core drivers in venture development and success. Therefore, it is not surprising that many studies include items measuring this – however in diverse forms. One group of researchers asks established entrepreneurs about what help they received from different parts of their formal network when setting up their business (Carsrud et al., 1987; Sharir & Lerner, 2006). Another group attempts to measure the current quality of existing networks on a firm-level, mostly by tracking which connections exist and in which form the present enterprise uses them (Aarstad et al., 2009; Casanueva & Gallego, 2010; Davies & Ryals, 2010; Johannisson, 1998; Johannisson et al., 2002; Molina-Morales & Martínez-Fernández, 2010). Greve and Salaff (2003) proceed similarly, but measure networks on an individual-based level. Müller (2008a) questions students about their existing networks, focusing on how courses can help establish the networks necessary to found an enterprise. As only Müller used networks when looking at intentions, her items largely inspired the five items included in the pretest. Reliability measures and factor analysis showed that the optimal solution was based on three items, which transferred into the final questionnaire to measure the perceived network.

I have a vast established network of contacts to help me if I become a social entrepreneur (SESC_Net_01)

I know potential business partners and/or suppliers who I could work with if I become a social entrepreneur (SESC_Net_04)

I have personal contacts with people working in or affected by the social topic my enterprise would deal with (SESC_Net_05)

The construct of perceived network also worked well, resulting in a Cronbach's alpha of $\alpha = .73$. Overall data quality results are in Table 21.

	SESC_Net_01	SESC_Net_04	SESC_Net_05	Construct SESC_Net
Mean	2.27	1.92	2.21	2.15
Standard deviation	1.13	1.13	1.49	0.97
Graphical distribution	ok	ok	ok	ok
Item difficulty (p)	0.32	0.23	0.30	–
Loadings FA	0.868	0.838	0.735	–
Number of factors extracted	–	–	–	1
Explained variance in FA	–	–	–	66.5%
Item discrimination	0.635	0.577	0.475	–
Cronbach's alpha	–	–	–	0.73
Item-to-item correlation	–	–	–	all < .80

Table 21: Data quality within network construct before linear regression

4.2.2.3.3. Measurement of perceived support

Other than knowledge on institutions, the concept of perceived support aims at personal interactions. In this sense, Brüderl and Preisendorfer (1998) ask entrepreneurs to indicate the level of support they receive from different groups (e.g., spouse, parents). Walter (2008) utilises a similar form when analysing academics' founding intentions. He names different personal contacts and asks respondents to indicate the expected level of support if they were to found an enterprise. Additionally, Walter differentiates between

materialistic support, network, advice and emotional support. The pretest questionnaire included a similar format, asking students to indicate how much support they would expect, differentiated both by type of support (financial, emotional, etc.) and by source of support (e.g., family). Results showed that while support was perceived over all levels of sources, respondents differentiated between financial support, on the one hand, and other support, on the other hand, summing up the other areas of assistance. Therefore, two separate constructs were formed: expected financial support and expected other support. To maintain a comparable structure, the same social groups were chosen as in the scale of SN-SE.

Expected financial support

The resulting scale for expected financial support resulted in three items based on Walter (2008):

If I became a social entrepreneur, I would be financially supported by...

- *my closest family (SESC_Support_01)*

- *my friends (SESC_Support_05)*

- *my fellow students (SESC_Support_17neu)*

Additionally, overall financial support was measured using a general statement on a Likert scale, also based on Walter (2008):

My close personal environment would support me financially, if I become a social entrepreneur (SESC_Support_21neu)

Here, expected financial support shows a Cronbach's alpha of $\alpha = .80$. Further data quality results are in Table 22.

	SESC_Supp _21	SESC_Supp _01	SESC_Supp _05	SESC_Supp _17	Construct SESC_ Fsupp
Mean	2.72	3.24	2.23	1.77	2.49
Standard deviation	1.21	1.32	1.06	0.90	0.90
Graphical distribution	ok	ok	ok	ok	ok
Item difficulty (p)	0.43	0.56	0.31	0.19	–
Loadings FA	0.701	0.828	0.875	0.790	–
Number of factors extracted	–	–	–	–	1
Explained variance in FA	–	–	–	–	64.1%
Item discrimination	0.539	0.691	0.704	0.584	–
Cronbach's alpha	–	–	–	–	0.80
Item-to-item correlation	–	–	–	–	all < .80

Table 22: Data quality within financial support construct before linear regression

Expected other support

Similarly, the resulting scale for expected other support resulted in three items based on Walter and Walter (2008):

If I became a social entrepreneur, I would be actively supported (with advice/counselling or networking efforts) by...

- my closest family (SESC_Support_18)

- my friends (SESC_Support_19)

- my fellow students (SESC_Support_20)

Likewise, overall other support was measured using a statement on a Likert scale, also based on Walter and Walter (2008):

My close personal environment would support me with advice or networking efforts if I became a social entrepreneur (SESC_Support_22)

The construct of expected other support showed a Cronbach's alpha of $\alpha = .82$. Reliability could have been improved even further by removing fellow students from the

scale, yet due to the importance of the item we upheld it. Table 23 shows overall data quality results.

	SESC_Supp _22	SESC_Supp _18	SESC_Supp _19	SESC_Supp _20	Construct SESC_Osu pp
Mean	3.22	3.67	3.59	3.26	3.44
Standard deviation	1.10	1.18	1.08	1.08	0.89
Graphical distribution	ok	ok	ok	ok	ok
Item difficulty (p)	0.55	0.67	0.65	0.57	–
Loadings FA	0.761	0.843	0.903	0.708	–
Number of factors extracted	–	–	–	–	1
Explained variance in FA	–	–	–	–	65.1%
Item discrimination	0.584	0.684	0.793	0.512	–
Cronbach's alpha	–	–	–	–	0.82
Item-to-item correlation	–	–	–	–	all < .80

Table 23: Data quality within other support construct before linear regression

4.2.3. Measurement of control variables

The control variables were mostly demographics so that single item measures sufficed.

Age

Respondents reported their age in years (as done by Kolvereid & Isaksen, 2006) (Dem_Age_01). The variable was coded in years.

Gender

The questionnaire included the options “male” or “female”, which the respondents ticked accordingly (as done by Kolvereid & Isaksen, 2006) (Dem_Gender_01). The answer “male” was coded with 1, the answer “female” was coded with 0.

Experience

Respondents stated their experience in social or business entrepreneurship by answering if they had either worked at a social (Dem_ExpSE_01) or business enterprise

(Dem_ExpE_01) or founded a social (Dem_ExpSE_02) or business enterprise (Dem_ExpE_02). They marked “yes” (coded as 1) or “no” (coded as 0) accordingly (based on Liñán et al., 2010). Finally, the study included volunteering experience. Students were asked whether they had previously actively volunteered (e.g., within a church group) (Dem_Vol_01). Additionally, they reported whether they had taken a so-called social year after school, which is a common option in Germany, especially for males who, until 2011, had to do military or social service for a year after school (Dem_Vol_02). The answer options were again “yes” or “no”.

Role models

Students reported whether there were either social entrepreneurs (Dem_Role_01), business entrepreneurs (Dem_Role_02), or strongly active volunteers (Dem_Role_03) in their close surrounding (family, neighbors, friends), by marking “yes” (coded as 1) or “no” (coded as 0) (based on Ruhle et al., 2010).

Education

To check for different possibly relevant areas of education, students stated whether they had previously taken part in a course which could be considered a social entrepreneurship (Dem_Edu_02), business entrepreneurship (Dem_Edu_01), or non-profit/ethics class (Dem_Edu_03). Again, they answered “yes” (coded as 1) or “no” (coded as 0) (based on Liñán et al., 2010).

Additional information to ensure data quality

For data cleaning, additional information was required. Based on the specification of the subject of study, it was checked whether students were business students. Their tenure also indicated if they were at the end of their studies. These checks were done to see if they fitted the target sample. Additionally, previous participation was checked to exclude the multiple participation of subjects.

Subject of study

Students were asked to write down their subject of study (Dem_Fach_01neu).

Tenure

Concerning tenure, students were offered three options regarding when they planned to finish their studies: “This year (2011)”, “Next year (2012)” or “Later (after 2012)”, which they ticked accordingly (Dem_Tenure_01) (as done by Liñán et al., 2010).

Participation check

As students in Wuppertal had taken part in the pretest, the final questionnaire included the question if they had previously taken part in this research, which they answered with “yes” or “no” (Dem_Check_01neu).

4.3. Overview over data set

As mentioned before, data cleaning removed the respondents who did not fit our sample criteria (i.e., Master's studies, business student). The 203 which remained showed interesting demographic and descriptive data.

4.3.1. Demographics

The average age of participants was 25.5 years and 92.4% of the students were aged between 21 and 30, which is as was expected for German students at Master's level. A detailed age distribution is shown in the Table 24.

Age (years)	Frequency	Valid percent
21 (lowest) - 25	142	72.50%
26 - 30	39	19.90%
31 - 35	8	4.10%
36 - 52 (highest)	7	3.60%
Total	196	100%
Missing	7	
Total	203	

Table 24: Participants' age distribution in years

As intended, the sample consisted of business students at the end of their studies, with 91.5% graduating by the following year, (Figure 21).

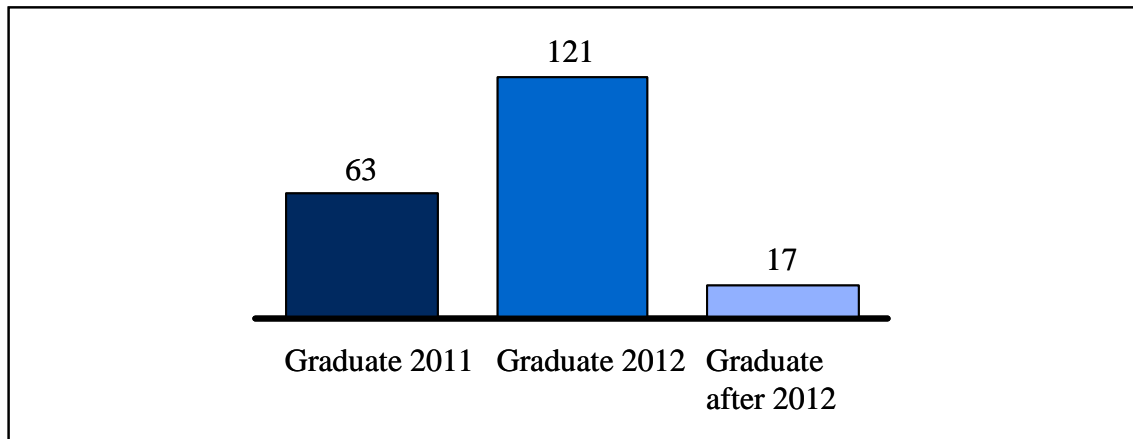


Figure 21: Subjects' anticipated year of graduation in number of subjects

Concerning gender, the sample is well mixed, showing a slight weighting towards female participants. Of the reported gender, 114 were female and 87 were male ($n = 201$, as 2 responses are missing), as seen in Figure 22 below.

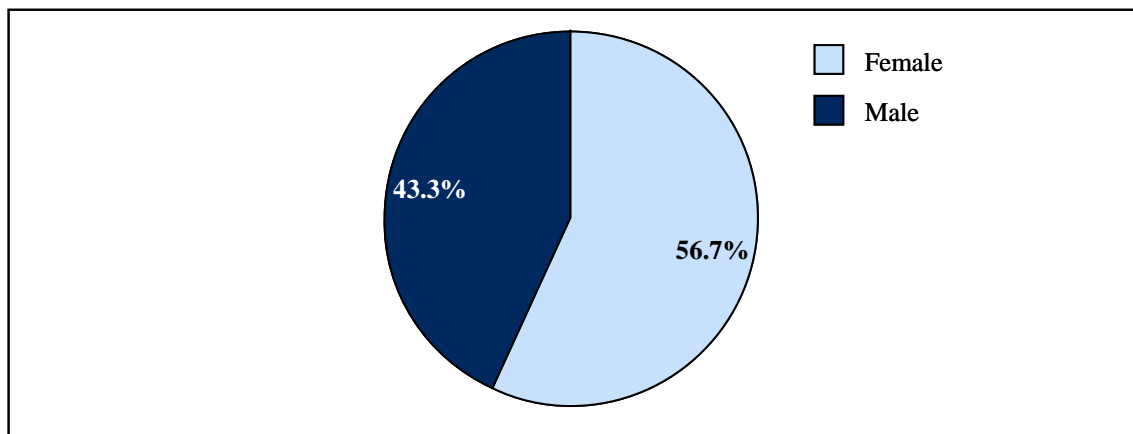


Figure 22: Participants' gender distribution in percent

While the majority of students had taken or were taking an entrepreneurship class, less had specific ethics or social entrepreneurship education, as shown in Figure 23. While 118 respondents had previously taken an entrepreneurship course, or are currently enrolled in one, 31 had taken social entrepreneurship classes and 73 had taken ethics or non-profit courses.

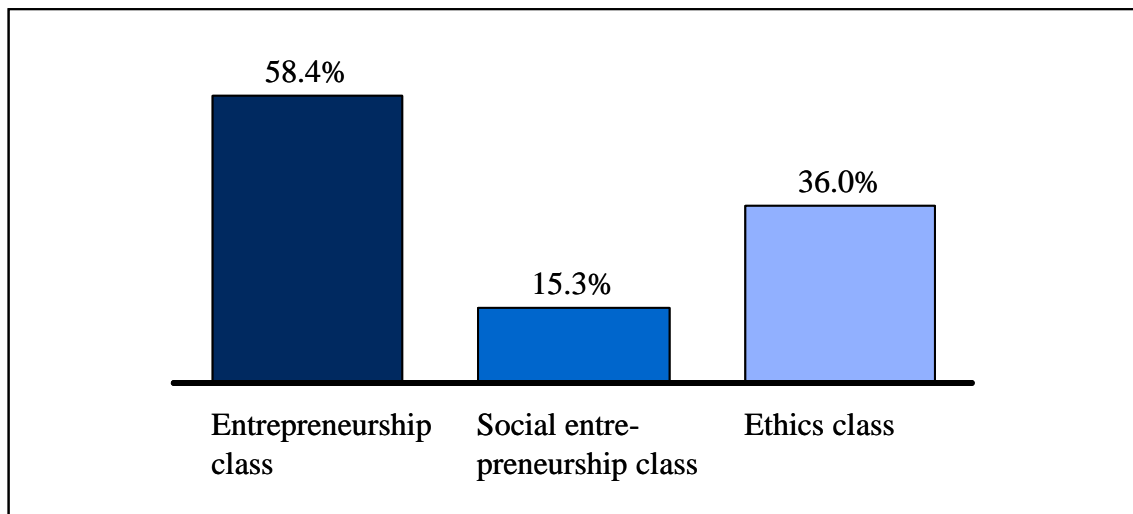


Figure 23: Subjects' participation in respective previous education in percent

Small numbers of students had previously worked at or founded businesses or social enterprises, as displayed in Figure 24. Unsurprisingly, experience in business entrepreneurship was higher: 18 were employed in business enterprises ($n = 201$), 14 had founded their own business enterprises ($n = 199$), and additional 9 respondents said they had done both. In the case of social entrepreneurship, a surprisingly high number or 10% of students (20 respondents) had worked in social enterprises, 15 as employees ($n = 200$), 2 as founders ($n = 199$), and 3 had experience in both roles.

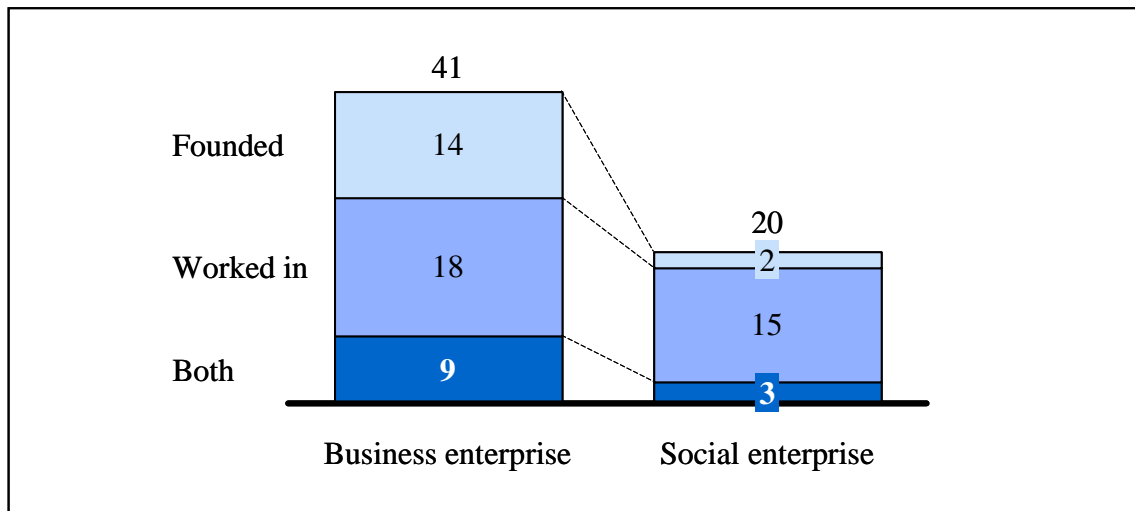


Figure 24: Subjects' previous working experience in business or social enterprises in number of subjects

As Figure 25 shows, while both genders show previous volunteering experience, mostly males have done social service. Over half of females and males say they were previously active as volunteers (with women on the basis of $n = 114$ and men on the basis of $n = 86$). Differences appeared with regards to social service, far more males reported to have been active than women – a fact which is also not surprising as until 2011 males were required to take a social year or engage in military service for one year after having finished high school.

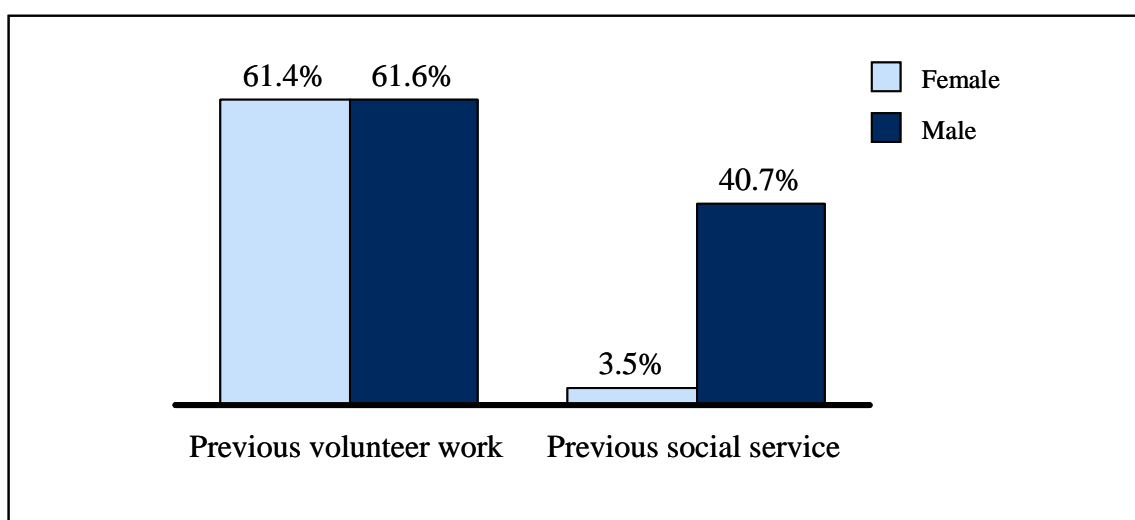


Figure 25: Subjects' previous volunteering experience in percent

Regarding the presence of role models in the respondents' lives, both business entrepreneurs (of $n = 201$, 64.5% have this type of role model) and active volunteers (of $n = 200$, 65.5% have this type of role model) exist in their close personal surroundings (see Figure 26). Being a new phenomena, at 11.8%, very few students personally know a social entrepreneur ($n = 199$).

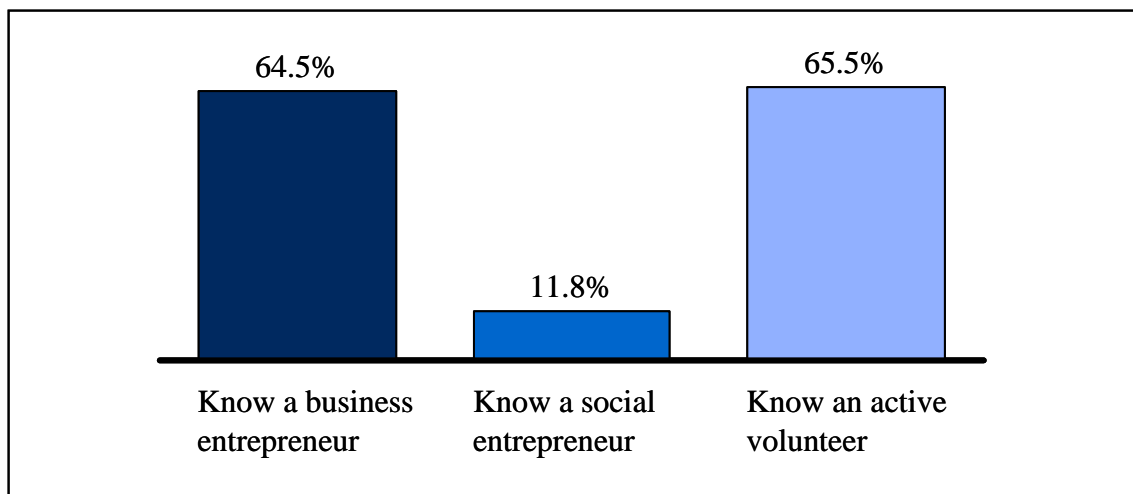


Figure 26: Subjects' acquaintance with business entrepreneurs, social entrepreneurs and volunteers in their close personal surrounding in percent

4.3.2. Descriptive analysis of social entrepreneurial intentions

As a final dependent variable, and as described in the measurement chapter, social entrepreneurial intentions were tested based on the following item: "I intend to become a social entrepreneur" (Int-SE_01). The 5-point Likert scale ranged from "1: Do not agree" to "5: Fully agree". Table 25 shows the exact results.

	Frequency	Valid percent
1	68	33.8%
2	63	31.3%
3	50	24.9%
4	18	9.0%
5	2	1.0%
Total	201	
Missing	2	
Total	203	

Table 25: Distribution of answers to statement on social entrepreneurial intention

The numbers show that 10% of respondents show high social entrepreneurial intentions.³⁴ Further, 35% consider social entrepreneurship as a career path.³⁵ These numbers are surprisingly high, considering the young age of this field and the low level of actual social entrepreneurship in Germany. To check the adequacy of the numbers, the data on the respondents' business entrepreneurial intentions is analysed, which can compare to similar studies. Table 26 shows the respective answers concerning business entrepreneurial intentions.

³⁴ Answers of 4 or 5 are interpreted as high social entrepreneurial intentions.

³⁵ Answers of 3, 4 or 5 are interpreted as consideration of social entrepreneurship as a career path.

	Frequency	Valid percent
1	29	14.3%
2	39	19.2%
3	55	27.1%
4	52	25.6%
5	28	13.8%
Total	203	
Missing	0	
Total	203	

Table 26: Distribution of answers to statement on business entrepreneurial intention

As expected, intentions concerning business enterprise are higher – 40% have high entrepreneurial intentions and 67% would take this career path into consideration. This is in line with previous studies on students entrepreneurial intentions (e.g., Frank et al., 2002 show 40-65% probability of founding a business in the future in business students). Therefore, it can be assumed that the data on social entrepreneurial intentions is adequate.

Comparing the answers to both statements (see Table 27), it becomes apparent that a third of participants have the same level of business and social entrepreneurial intentions (those on the diagonal between Int-SE_01 and EInt_01). They seem to consider business and social entrepreneurship as two types of entrepreneurship which they evaluate the same. The majority of participants have higher business entrepreneurial intentions than in the social realm (the answers on the top right of the matrix). Yet, some students show higher social entrepreneurial intentions than business options (bottom left of the matrix).

		EInt_01				
		1	2	3	4	5
Int-SE_01	1	21	9	14	16	8
	2	4	17	15	13	14
	3	4	9	20	13	4
	4	0	3	6	8	1
	5	0	0	0	1	1

Table 27: Matrix of distribution of answers on Int-SE_01 and EInt_01

The mean and standard deviations of Int-SE_01 and EInt_01 also show the respective differences, as Table 28 portrays.

	Int-SE_01	EInt_01
Mean	2.12	3.05
Standard Deviation	1.01	1.25

Table 28: Means and standards deviations of Int-SE_01 and EInt_01

4.4. Results of multiple linear regressions

Having established the relevant constructs, multiple linear regression is applied to test the hypotheses. The process and tests are in accordance with Backhaus, Erichson, Plinke, and Weiber (2003), Bortz (1999), Brosius (2008) and Janssen and Laatz (2007). In total, there are four regressions to conduct as there are four dependent variables (Int-SE, ATB-SE, PBC-SE, SN-SE).

To reduce complexity and enable interpretation, not all control variables are included in the final regressions. Rather, those relevant for each one have previously been identified. The same can be said for potential moderator variables. To identify potentially relevant *control variables*, each of the four regressions (onto Int-SE, ATB-SE, PBC-SE and SN-SE respectively) is run including all control variables and all explanatory variables suggested in the model. These control variables which show a significant effect are later included in the final regressions.

To test the existence of *moderator effects*, initial linear regressions are run. Based on the results, potential cases of moderator variables are identified when indirect effects are significant, but the direct effect isn't. For these cases, a moderator variable is calculated based on standardized values for each of the explanatory variables affected. Each regression is then run again, including all calculated potential moderator variables. If the moderator proves significant, it is included in the final regression.

Then, the four final multiple linear regressions are conducted. Each includes the explanatory variables as hypothesized in the model and the relevant control and moderator variables. The calculation is done in SPSS and follows the guidelines given by Backhaus, Erichson, Plinke, and Weiber (2003), Bortz (1999), Brosius (2008) and Janssen and Laatz (2007).

To analyse the results, the beta-values and their significance are checked. Additionally, the overall explained variance R^2 is identified. To further establish high quality standards, the presence of multicollinearity and normal distribution of the residuals is tested.³⁶ Multicollinearity is checked within each construct, based on the VIF and Tolerance as

³⁶ Selection of tests in accordance with Brosius (2008) and Schermelleh-Engel & Werner (2007). Autocorrelation not tested, as it is not a time-row test, as suggested by Backhaus, Erichson, Plinke, and Weiber (2003).

reported by SPSS within linear regression. Here, values of VIF are aimed at $VIF < 2.000$, while all values $VIF < 10.000$ can be accepted. Likewise, tolerance should be $Tolerance > .200$ (as done by Walter, 2008).³⁷ Furthermore, the normal distribution of the residuals is tested using the Kolmogorov-Smirnov-Test in SPSS. This shows that the data is applicable for the further statistical analyses run.

4.4.1. Linear regression on social entrepreneurial intentions

Regarding the multiple linear regression on social entrepreneurial intentions (Int-SE_01), analysis shows that two control variables exist: Dem_ExpSE_01 and Dem_Gender_01. Therefore, these are included in the final regression. Mediator analysis does not show signs of existing moderators. Hence, none are added to the regression.

The multiple linear regression on Int-SE gives the results shown in Table 29.³⁸

	Beta	Sig.	VIF	Tolerance
ATB	.505***	.000	1.580	.633
PBC	.269***	.000	1.281	.781
SN	.003	.966	1.546	.647
Dem_ExpSE_01	.131**	.014	1.042	.960
Dem_Gender_01	-.150***	.008	1.154	.867
R²	.486***	.000	–	–

Table 29: Results of linear regression on social entrepreneurial intentions

The regression is highly significant. The effect of all variables besides SN-SE is significant. Additionally, there is no indication of multicollinearity as all values of VIF are below 2.000 and those of Tolerance are over .200. The Kolmogorov-Smirnov-Test of the

³⁷ The relevant thresholds differ widely in research, Backhaus, Erichson, Plinke, and Weiber (2003) state that, in fact, there is no valid threshold which one could name.

³⁸ For all regressions, the significance is evaluated as follows: *** for $p < .010$, ** for $.010 < p < .050$, * for $.050 < p < .100$, as chosen by S. Müller (2008a). Brosius (2008) also says that 10% level of significance can be accepted.

residual shows that they are normally distributed. Therefore, all the prerequisites for linear regression are given and the values are open to interpretation.

4.4.2. Linear regression on attitude towards becoming a social entrepreneur

Regarding the multiple linear regression on ATB-SE, analysis shows that two control variables exist: Dem_ExpE_02 and Dem_Role_01. Therefore, these are included in the final regression. Mediator analysis shows that SESC_OSupp moderates the relationship between SN and ATB. Therefore, the moderator variable was calculated as SN*SESC_OSupp. This variable was included in the final regression.

The multiple linear regression on ATB-SE gives the results shown in Table 30.

	Beta	Sig.	VIF	Tolerance
SEPer_Emp	-.164**	.012	1.490	.671
SEPer_SoRe	.171***	.009	1.496	.668
SEPer_Entr	.020	.796	2.071	.483
SEHC_Skill_P	.148**	.031	1.629	.614
SEHC_Skill_C	-.059	.445	2.098	.477
SEHC_Skill_L	-.224***	.002	1.742	.574
SEHC_KnEx	.256***	.002	2.329	.429
SESC_Inst	.118*	.087	1.654	.605
SESC_Netw	-.133*	.097	2.248	.445
SESC_OSupp	.045	.604	2.701	.370
SESC_FSupp	-.179***	.007	1.528	.654
PBC	.200**	.010	2.059	.486
SN	.524***	.000	1.613	.620
SN*SESC_OSupp	.115*	.053	1.225	.816
Dem_ExpE_02	-.125**	.038	1.252	.799
Dem_Role_01	.115*	.052	1.212	.825
R²	.495***	.000	–	–

Table 30: Results of linear regression on attitude towards becoming a social entrepreneur

The regression is highly significant. The effects of all variables besides SEPer_Entr, SEPer_Skill_C and SESC_OSupp are significant. Additionally, there is no indication of multicollinearity as most values of VIF are under 2.000 and those of Tolerance are over .200. Of those above VIF over 2.000, none come close to the threshold of VIF = 10.000, so that all can stay in the regression. The Kolmogorov-Smirnov-Test of the residual shows that they are normally distributed. Therefore, all the prerequisites for linear regression are given and the values are open to interpretation.

4.4.3. Linear regression on perceived behavioural control on becoming a social entrepreneur

Regarding the multiple linear regression on PBC-SE, analysis shows that two control variables exist: Dem_Edu_01 and Dem_Gender_01. Therefore, these are included in the final regression. Mediator analysis does not show signs of existing moderators. Hence, none are added to the regression.

The multiple linear regression on PBC-SE on becoming a social entrepreneur gives the results shown in Table 31.

	Beta	Sig.	VIF	Tolerance
SEHC_Skill_P	.088	.130	1.288	.777
SEHC_Skill_C	.160**	.012	1.549	.646
SEHC_Skill_L	.156**	.015	1.565	.639
SEHC_KnEx	.335***	.000	2.042	.490
SESC_Inst	.013	.842	1.593	.628
SESC_Netw	.090	.207	1.966	.509
SESC_OSupp	.091	.199	1.928	.519
SESC_FSupp	.037	.535	1.415	.707
Dem_Edu_01	.061	.254	1.111	.900
Dem_Gender_01	.136**	.014	1.169	.855
R²	.512***	.000	–	–

Table 31: Results of linear regression on perceived behavioural control on becoming a social entrepreneur

The regression is highly significant. Yet, only the effects of selected variables are significant, being SEHC_Skill_C, SEHC_Skill_L, SEHC_KnEx and Dem_Gender_01. Additionally, there is no indication of multicollinearity, all but one value of VIF are under 2.000 and those of Tolerance are over .200. The VIF value over the threshold is very close to 2.000, so that all can stay in the regression. The Kolmogorov-Smirnov-Test of the residual shows that they are normally distributed. Therefore, all the prerequisites for linear regression are given and the values are open to interpretation.

4.4.4. Linear regression on subjective norms on becoming a social entrepreneur

Regarding the multiple linear regression on SN-SE, analysis shows that one control variable exists: Dem_Gender_01. Therefore, this is included in the final regression. Mediator analysis does not show signs of existing moderators. Hence, none are added to the regression.

The multiple linear regression on SN-SE gives the results shown in Table 32.

	Beta	Sig.	VIF	Tolerance
SEPer_Emp	.071	.263	1.205	.830
SEPer_SoRe	.191***	.006	1.391	.719
SEPer_Entr	.027	.697	1.439	.695
SESC_Inst	-.136*	.057	1.507	.664
SESC_Netw	.008	.919	1.630	.613
SESC_OSupp	.359***	.000	1.648	.607
SESC_FSupp	.162**	.018	1.363	.733
Dem_Gender_01	-.112*	.080	1.213	.824
R ²	.357***	.000	–	–

Table 32: Results of linear regression on subjective norms concerning becoming a social entrepreneur

The regression is highly significant. All variables but three (SEPer_Emp, SECH_Entr and SESC_Netw) show significant effects on SN. Additionally, there was no indication of

multicollinearity as all values of VIF are under 2.000 and those of Tolerance are over .200. The Kolmogorov-Smirnov-Test of the residual shows that they are normally distributed. Therefore, all the prerequisites for linear regression are given and the values are open to interpretation.

4.4.5. Overview of results

Early on in the analysis, the data showed that the constructs are more differentiated than expected. Therefore, the originally developed hypotheses had to be further specified. Originally, relationships were assumed to exist between construct bundles (such as SEPer) and the dependent variables. It has been shown that there are in fact separate constructs (such as SEPer_Entr, SEPer_Emp and SEPer_SoRe) which, therefore, should have a differentiated effect on the dependent variable. Therefore, the hypotheses are analysed on the level of the subconstructs.

As Table 33 shows, of the 31 original hypotheses, 17 cannot be confirmed, while 15 cannot be dismissed. The results on a construct level are also shown in Figure 27.

On the following page:

Table 33: Overview of hypotheses and results

4.4. Results of multiple linear regressions

	Direction of hypothesis	Hypothesized effect of relationship	Actual effect of relationship	Significance of relationship	Hypothesis confirmed?
H 0.1	ATB-SE → Int-SE	+	+	yes	yes
H 0.2	PBC-SE → Int-SE	+	+	yes	yes
H 0.3	SN-SE → Int-SE	+	+	no	no
H 0.4	SN-SE → ATB-SE	+	+	yes	yes
H 0.5	PBC-SE → ATB-SE	+	+	yes	yes
H 1.1	SEPer_Entr → ATB-SE	+	+	no	no
H 1.2	SEPer_Entr → SN-SE	+	+	no	no
H 1.3a	SEPer_Emp → ATB-SE	+	-	yes	no
H 1.3b	SEPer_SoRe → ATB-SE	+	+	yes	yes
H 1.4a	SEPer_Emp → SN-SE	+	+	no	no
H 1.4b	SEPer_SoRe → SN-SE	+	+	yes	yes
H 2.1	SEHC_KnEx → ATB-SE	+	+	yes	yes
H 2.2	SEHC_KnEx → PBC-SE	+	+	yes	yes
H 2.3a	SEHC_Skill L → ATB-SE	+	-	yes	no
H 2.3b	SEHC_Skill C → ATB-SE	+	-	no	no
H 2.3c	SEHC_Skill P → ATB-SE	+	+	yes	yes
H 2.4a	SEHC_Skill L → PBC-SE	+	+	yes	yes
H 2.4b	SEHC_Skill C → PBC-SE	+	+	yes	yes
H 2.4c	SEHC_Skill P → PBC-SE	+	+	no	no
H 3.1	SESC_Inst → ATB-SE	+	+	yes	yes
H 3.2	SESC_Inst → PBC-SE	+	+	no	no
H 3.3	SESC_Inst → SN-SE	+	-	yes	no
H 3.4	SESC_Netw → ATB-SE	+	-	yes	no
H 3.5	SESC_Netw → PBC-SE	+	+	no	no
H 3.6	SESC_Netw → SN-SE	+	+	no	no
H 3.7a	SESC_FSupp → ATB-SE	+	-	yes	no
H 3.7b	SESC OSupp → ATB-SE	+	+	no	no
H 3.8a	SESC_FSupp → PBC-SE	+	+	no	no
H 3.8b	SESC OSupp → PBC-SE	+	+	no	no
H 3.9a	SESC_FSupp → SN-SE	+	+	yes	yes
H 3.9b	SESC OSupp → SN-SE	+	+	yes	yes

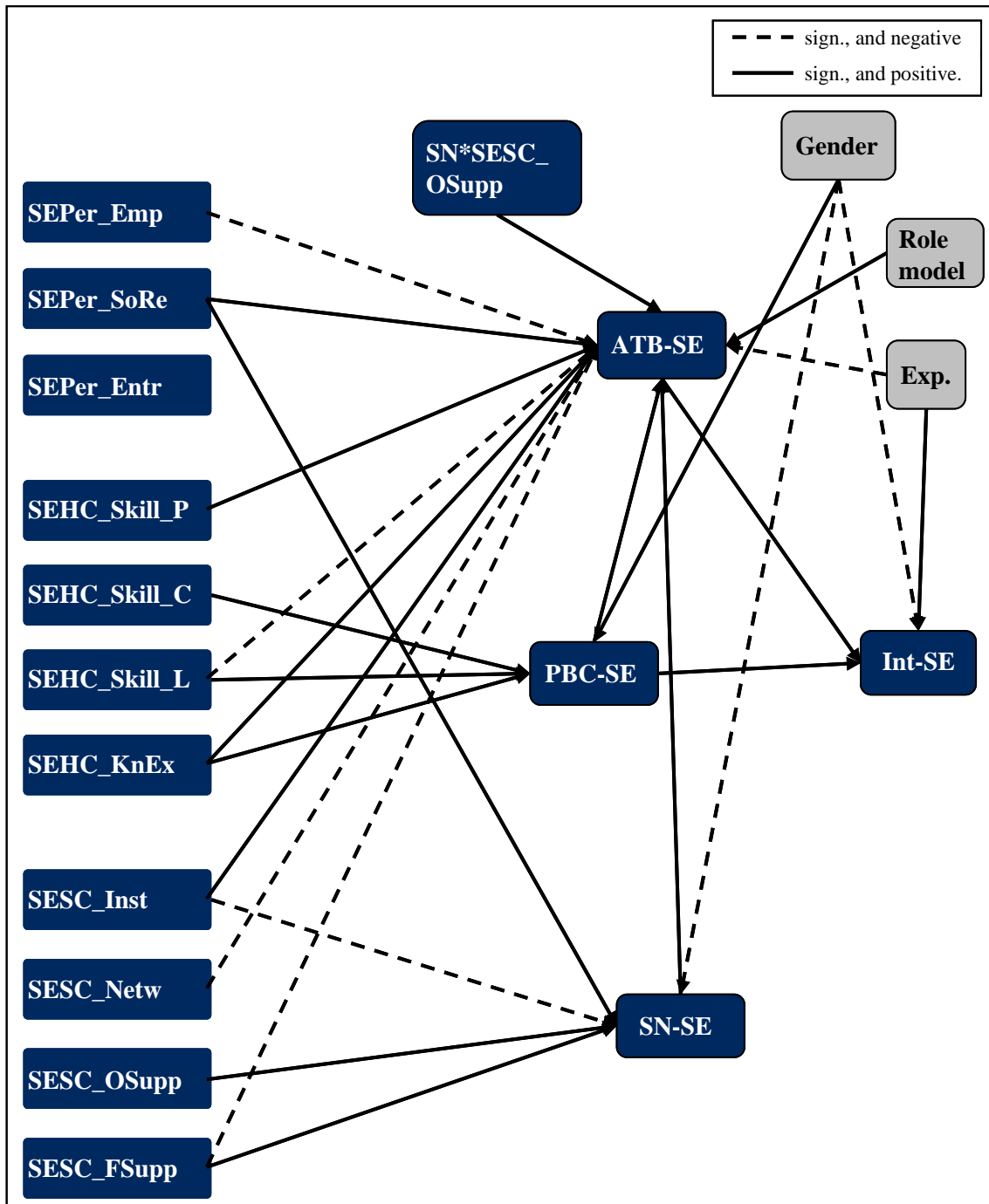


Figure 27: Graphical display of the results of the model of social entrepreneurial intention formation

4.4.6. Results differentiated by gender

The gender-related control variable Dem_Gender_01 has a significant effect on the dependent variables in three of the four regressions (Int-SE, PBC-SE and SN-SE). As mentioned in Chapter 4.2.3., the answers to the gender question are coded as “1” in the case of a male respondent, and “0” in the case of females. Hence, negative effects of the variable show that females with the same level of answers regarding the explanatory variables tend to show higher levels of answers regarding the dependent variable. Respectively, positive effects show higher dependent variable levels in the case of males. This said, females tend to have higher levels of social entrepreneurial intentions (at the same levels of ATB-SE, PBC-SE and SN-SE than males), higher levels of SN-SE and lower levels of PBC-SE.

This frequent occurrence of gender influence leads to a rerun of the statistical analyses split by gender to obtain a differentiated view on the data. This goes in line with the research mentioned in Chapter 3.2.4.2., which elaborates on gender differences in business intentions. Again, a descriptive analyses and the four multiple linear regressions on Int-SE, ATB-SE, PBC-SE and SN-SE are conducted.

Descriptive analyses

As described in Chapter 4.3.2., 10% of all students showed high social entrepreneurial intentions, while a total of 35% consider this career path. Split by gender, the data shows further differentiation, as can be seen in Figure 28. Data shows that females have higher social entrepreneurial intentions. Concerning strong intentions, the values are almost twice as high. And more of them generally consider social entrepreneurship as a career path.

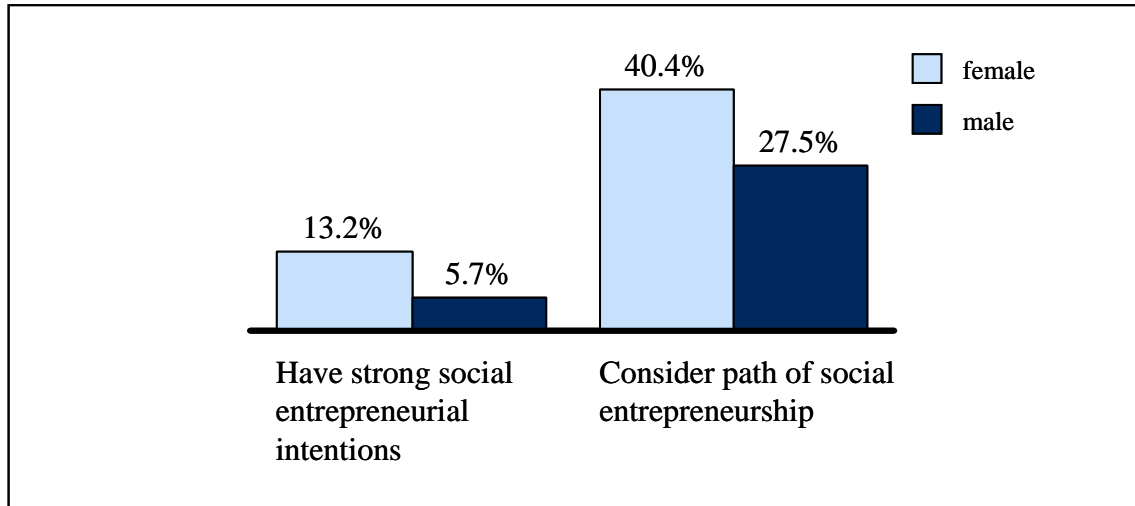


Figure 28: Social entrepreneurial intentions split by gender in percent

In comparison, females' business entrepreneurial intentions are generally lower than those of males, as can be seen in Figure 29. Here, the results are the exact opposite: twice as many males have stronger business entrepreneurial intentions and more males would consider becoming business entrepreneurs.

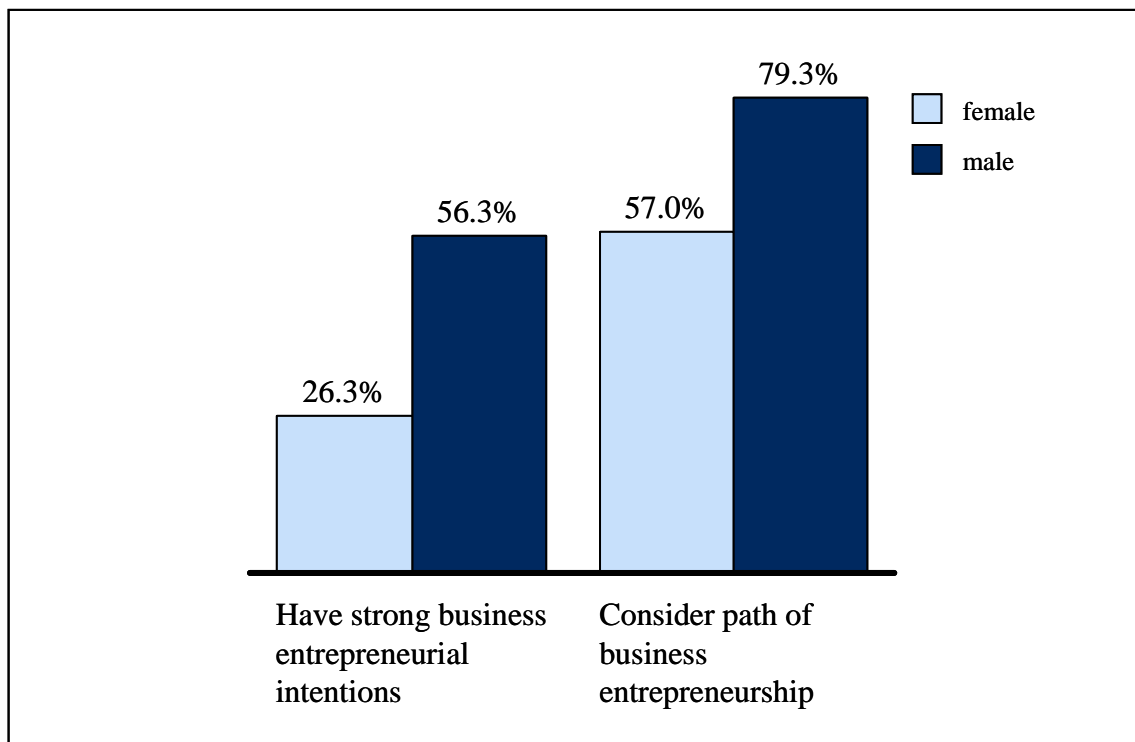


Figure 29: Business entrepreneurial intentions by gender in percent

As is the case over all respondents for both genders, social entrepreneurial intentions are lower than business entrepreneurial ones over all respondents. Mean and standard deviations of Int-SE_01 and EInt_01 also show this (Table 34).

		Int-SE_01	EInt_01
female	Mean	2.23	2.69
	Standard deviation	1.06	1.14
male	Mean	1.98	3.53
	Standard deviation	0.95	1.26

Table 34: Mean and standard deviations of social and business entrepreneurial intentions split by gender

Multiple linear regressions split by gender

Once again using SPSS, the multiple linear regressions performed above were run again, but split by gender. Potential control and moderating variables were adapted from the overall multiple linear regressions to ensure comparability. As above, the beta-values and their significance were checked in each calculation. The overall explained variance R^2 is also identified. To maintain high quality data standards, the presence of multicollinearity and the normal distribution of the residuals were tested.

Multiple linear regressions on Int-SE split by gender

Table 35 shows the results for the multiple linear regression of social entrepreneurial intentions split by gender.

	Female students				Male Students			
	Beta	Sig.	VIF	Tol.	Beta	Sig.	VIF	Tol.
ATB-SE	.581***	.000	1.611	.621	.465***	.000	1.594	.628
PBC-SE	.236***	.002	1.257	.796	.261***	.004	1.175	.851
SN-SE	-.048	.559	1.469	.681	.052	.609	1.533	.652
Dem_ExpSE_01	.136**	.049	1.045	.957	.145*	.089	1.058	.945
R ²	.521***	.000	–	–	.466***	.000	–	–

Table 35: Results of linear regression on social entrepreneurial intentions split by gender

While both regressions are highly significant, the explained variance is higher in the case of female students. In both cases, ATB-SE, PBC-SE and Dem_ExpSE_01 have significant effects on social entrepreneurial intentions, while SN-SE do not. It is also apparent, that ATB has a stronger effect in the case of female students, according to the assigned beta-value. Regarding quality checks, there were no signs of multicollinearity and the residuals showed a normal distribution.³⁹

Multiple linear regressions on attitude towards becoming a social entrepreneur split by gender

Table 36 shows the results for the multiple linear regression of ATB-SE split by gender.

³⁹ As above, multicollinearity was tested by analysing VIF (ideally VIF < 2.000, threshold at VIF > 10.000) and Tolerance (Tolerance > .200).

	Female Students				Male Students			
	Beta	Sig.	VIF	Tol.	Beta	Sig.	VIF	Tol.
SEPer_Emp	-.178**	.042	1.632	.613	-.133	.209	1.467	.682
SEPer_SoRe	.230**	.010	1.668	.600	.138	.194	1.486	.673
SEPer_Entr	.034	.703	1.763	.567	.018	.903	2.830	.353
SEHC_Skill_P	.058	.551	2.050	.488	.208**	.049	1.446	.692
SEHC_Skill_C	.152	.154	2.433	.411	-.217	.108	2.396	.417
SEHC_Skill_L	-.312***	.002	2.052	.487	-.205*	.082	1.808	.553
SEHC_KnEx	.244**	.030	2.703	.370	.273**	.039	2.262	.442
SESC_Inst	.185**	.031	1.557	.642	.094	.435	1.916	.522
SESC_Netw	-.189	.113	3.064	.326	-.186	.140	2.086	.479
SESC_OSupp	.077	.505	2.870	.348	.096	.528	3.089	.324
SESC_FSupp	-.238**	.010	1.775	.563	-.130	.224	1.503	.665
PBC-SE	.207**	.036	2.081	.480	.217	.102	2.294	.436
SN-SE	.497***	.000	1.725	.580	.485***	.000	1.695	.590
SN*SESC_Osupp	.165**	.028	1.201	.833	.102	.328	1.435	.697
Dem_ExpE_02	-.057	.467	1.316	.760	-.142	.157	1.315	.760
Dem_Role_01	.141*	.073	1.325	.755	.109	.266	1.273	.786
R ²	.575***	.000	–	–	.493***	.000	–	–

Table 36: Results of linear regression on attitudes towards becoming a social entrepreneur split by gender

Again, while both regressions are highly significant, the explained variance is higher in the case of female students. Concerning the effects of different explanatory variables, results differ strongly. While the direction of effect (positive vs. negative) is the same for all significant variables when comparing female and male respondents, females show a far larger spread of variables effecting their ATB-SE. Females have ten explanatory variables significantly influencing ATB-SE, while males only have four. Regarding quality checks, there are no signs of multicollinearity and the residuals show a normal distribution.

Multiple linear regressions on perceived behavioural control on becoming a social entrepreneur split by gender

Table 37 shows the results for the multiple linear regression on PBC-SE split by gender.

	Female students				Male students			
	Beta	Sig.	VIF	Tol.	Beta	Sig.	VIF	Tol.
SEHC_Skill_P	.145	.101	1.485	.674	.063	.457	1.197	.836
SEHC_Skill_C	.044	.643	1.745	.573	.279***	.005	1.575	.635
SEHC_Skill_L	.125	.210	1.909	.524	.232**	.012	1.363	.734
SEHC_KnEx	.369***	.001	2.184	.458	.318***	.004	1.980	.505
SESC_Inst	.035	.686	1.425	.702	-.064	.535	1.789	.559
SESC_Netw	.132	.228	2.302	.434	.026	.807	1.892	.529
SESC_OSupp	.093	.373	2.099	.476	.118	.262	1.862	.537
SESC_FSupp	-.022	.809	1.574	.635	.094	.294	1.356	.738
Dem_Edu_02	.066	.374	1.076	.929	.045	.592	1.171	.854
R ²	.464***	.000	–	–	.545***	.000	–	–

Table 37: Results of linear regression on perceived behavioural control on becoming a social entrepreneur split by gender

In this case, while both regressions are highly significant, the explained variance is higher in the case of male students. Concerning the effects of different explanatory variables, the results differ strongly. While only one explanatory variable (SEHC_KnEx) has a significant effect on females' PBC-SE, males' PBC-SE is also shaped by their perceived level of skill regarding creativity and leadership. Again, the direction of effects is the same for females and males. Regarding quality checks, there are no signs of multicollinearity and the residuals show a normal distribution.

Multiple linear regressions on subjective norms on becoming a social entrepreneur split by gender

Table 38 shows the results for the multiple linear regression on SN-SE split by gender.

	Female students				Male students			
	Beta	Sig.	VIF	Tolerance	Beta	Sig.	VIF	Tolerance
SEPer_Emp	.109	.219	1.232	.812	.047	.635	1.211	.826
SEPer_SoRe	.159	.103	1.485	.674	.251**	.016	1.264	.791
SEPer_Entr	.064	.463	1.208	.828	-.054	.642	1.647	.607
SESC_Inst	-.144	.128	1.406	.711	-.089	.439	1.592	.628
SESC_Netw	-.043	.694	1.843	.543	.063	.580	1.563	.640
SESC_OSupp	.414** *	.000	1.738	.575	.313***	.008	1.643	.609
SESC_FSupp	.096	.323	1.491	.671	.230**	.030	1.320	.758
R ²	.338** *	.000	–	–	.354***	.000	–	–

Table 38: Results of linear regression on subjective norms on becoming a social entrepreneur split by gender

Again, both regressions are highly significant, the variance only slightly higher in the case of male students. While the construct SESC_OSupp has a significant effect on both females and males, the females' PBC-SE is additionally shaped by the construct SEPer_SoRe, while the males' is affected by the construct SESC_FSupp. Again, the direction of effects is the same for female and male students. Regarding quality checks, there were no signs of multicollinearity and the residuals showed a normal distribution.

5. Discussion of results

Having analysed the data obtained in the four German universities and having compared them with the initial hypotheses, the results of the quantitative study are now briefly discussed.

5.1. The applicability of the theory of planned behaviour in the study of social entrepreneurial intention formation

Overall, the TPB shows a high level of applicability in the study of social entrepreneurial intentions. With an explained variance of 49%, the results are higher than the average scores achieved according to TPB meta-analyses by Armitage and Conner (2001, overall $R^2 = 39\%$) or Sutton (1998, overall R^2 between 40% and 50%). They are comparable with results obtained in studies of business entrepreneurial intentions which vary between 35% and 57% (e.g., Autio et al., 2001; Goethner et al., 2009; Krueger et al., 2000; Liñán & Javier Santos, 2007). Hence, the TPB offers a good framework to study intention formation in social entrepreneurship.

Concerning the effects of the attitude-level antecedents on social entrepreneurial intentions, the findings are also in line with comparable studies from business entrepreneurship: ATB-SE and PBC-SE show high significant positive effects on social entrepreneurial intentions. When controlled for previous work in a social enterprise and gender, ATB-SE is the strongest determinant. This means that the people who are most likely to form social entrepreneurial intentions are those who have a positive perception of becoming a social entrepreneur. But, besides liking the idea of becoming a social entrepreneur, the belief that one could actually go through with it is also important. The high level of PBC-SE shows that those people who believe they would be able to become social entrepreneurs in a self-determined manner have higher intentions of becoming social entrepreneurs than those who don't believe they could. Self-confidence and determination are, hence, important for establishing social entrepreneurial intentions. Besides these cognitive elements, two demographic variables show an effect. First, those who have previously worked in a social enterprise have higher intentions to become a social entrepreneur than those who lack this experience. It is interesting that those who have actually founded a social enterprise do not show higher founding intentions. This

could be due to the fact that the original founding experience made them very realistic about the pros and cons of such a venture. Yet, the number of people who took part in the survey and had actual social enterprise founding experience is so low that the effects may have been negligible. Second, looking at the negative direct effect of gender on social entrepreneurial intentions, it is clear that – given the same levels of ATB-SE and PBC-SE – women are more likely to intend to become social entrepreneurs than men. Interestingly, this gender-effect is the exact opposite to numerous business entrepreneurship studies which show that men have higher business founding intentions than women. To understand these dynamics in detail, the findings on gender-based differences are discussed in a separate Chapter 4.4.6.

Moving back to the classical TPB-constructs, while ATB-SE and PBC-SE are highly significant, SN-SE shows no significant effect on the level of social entrepreneurial intentions. This is in accordance with numerous studies on business entrepreneurial intentions, showing low or insignificant relationships in this area (e.g., Krueger et al., 2000; Liñán & Chen, 2007). As a quality analysis of the SN-SE construct shows high values, the reliability and validity of the construct are a given, excluding measurement flaws. Hence, while the causal link has a positive prefix, the direct relationship between subjective norms and social entrepreneurial intentions is insignificant. This means that even if social pressure to become a social entrepreneur is present, this does not directly alter the social entrepreneurial intention of the subject. The decision to become a social entrepreneur is one based on one's own evaluations, rather than the approval of third parties. Yet, rather than disregarding social norms for the formation of social entrepreneurial intentions, a look at the indirect effect they have via ATB-SE shows promising results. The two newly introduced causal links between SN-SE and PBC-SE on ATB-SE show highly positive results. Subjective norms were clearly the strongest determinant of a positive attitude towards becoming a social entrepreneur. Hence, rather than directly changing people's intentions on becoming a social entrepreneur, the external approval of such a career choice leads people to see it in a more favourable light. And as discussed above, such positive perceptions lead to higher social entrepreneurial intentions. Subsequently, subjective norms have a strong effect on social entrepreneurial intentions, albeit an indirect one. PBC-SE also shows strong effects on ATB-SE. This is

interesting as it means that PBC-SE works in two directions: both directly onto social entrepreneurial intentions as well as indirectly through an improved perception of becoming a social entrepreneur. While high levels of perceived ability and control lead people to increasingly consider becoming a social entrepreneur, they also lead people to have a more positive attitude towards this career choice. This is most likely due to the fact that those actions are considered favourable which match a person's abilities, as they expect to be successful if they undertake them.

Overall, all three classical antecedents show that they have an important role in social entrepreneurial intention formation: ATB-SE has the strongest direct effect on social entrepreneurial intentions. SN-SE are the strongest determinants of this ATB-SE and, therefore, have a powerful indirect effect on social entrepreneurial intentions. And PBC-SE not only affects social entrepreneurial intentions directly, yet also increases the subjects' ATB-SE.

The formation of ATB-SE, PBC-SE and SN-SE in the study of social entrepreneurial intentions

The model shows a good fit for the analysis of the formation of the attitude-level TPB-constructs, with an explained variance of 50% of ATB-SE, 51% of PBC-SE and 36% of SN-SE. While there are few studies which include antecedents to the attitude-level TPB-constructs, those who do have them result in far lower values. Ruhle, Mühlbauer, Grünhagen, and Rothenstein (2010), for example, only explain 10% of ATB, 15% of PBC and 9% of SN. It must be added that in their model the antecedents are of a purely demographic nature. Wang et al.'s (2001) results are slightly better, resulting in 20% explained variance of perceived desirability and 21% explained variance of perceived feasibility by including attitudinal variables (e.g., efficacy) into their model. This present study is the first to show such extensive insight into the formation of ATB, PBC and SN in an entrepreneurial setting.

In the case of ATB-SE, elements of social entrepreneurial personality, social entrepreneurial human capital and social entrepreneurial social capital have an effect. The details of each antecedent are discussed in the subsequent chapters. Additionally, the previous founding of a business venture has a significant negative effect on ATB-SE.

People who have previously founded a business do not find social entrepreneurship to be an attractive career option – maybe based on negative experiences as an entrepreneur or based on positive experiences which led them to find business rather than social entrepreneurship attractive. The presence of a social entrepreneur in the subject's close surroundings also improves their attitude towards becoming a social entrepreneur. This is in line with some previous suggestions from business entrepreneurship literature that imply that having successful entrepreneurs in the close surrounding makes a task more comprehensible and hence more attractive. This is confirmed for social entrepreneurs.

Concerning PBC-SE, only elements of social entrepreneurial human capital had an effect. Gender shows an effect as a control variable. All other things being stable, men have higher perceptions of their ability to become a social entrepreneur than women. This is in line with previous studies in business entrepreneurship which show higher levels of self-confidence in men – which lead to higher founding intentions of males in business entrepreneurship (see Chapter 3.2.4.2.). While the ability perceptions also apply in social entrepreneurship, they do not have the same effect as in business, as eventually more women intend to become social entrepreneurs – the indirect effect of gender through PBC-SE is, therefore, partially neutralised.

Finally, in the realm of SN-SE, both aspects of social entrepreneurial personality and social entrepreneurial social capital have causal links to SN-SE. Again, gender plays a decisive role. All things being the same, women are more likely to perceive a social pressure to become a social entrepreneur than men. One possible explanation is that women may generally believe that society expects them to work in socially oriented positions, as they better fit female role perceptions.

As this short overview has shown, regarding the control variables, gender and some aspects of experience and role models affect the formation of social entrepreneurial intentions. Yet, caution is called for. On the one hand, the demographics affect very specific points of intention formation, rather than intention as a whole. On the other hand, they must be viewed in a differentiated manner, for example, only one kind of role model – the social entrepreneur – and selected types of experience are relevant in the process. It must also be added that the control variables age and education showed no effect in the current study.

5.2. The effect of social entrepreneurial personality on social entrepreneurial intention formation

Viewing the model as a whole, social entrepreneurial personality appears to have a strong effect on social entrepreneurial intention formation. Specifically, it affects social entrepreneurial intentions indirectly via ATB-SE and SN-SE. Yet, statements must be differentiated by the underlying constructs of entrepreneurial personality, empathy and social responsibility.

Having an **entrepreneurial personality** has no effect on ATB-SE or SN-SE, so neither on the attitude towards becoming a social entrepreneur nor the social pressure perceived to become one. While some studies in business entrepreneurship show insignificant links between personality and entrepreneurship as discussed in Chapter 3.2.1.2., Lüthje and Frank (2003) do see significant effects of specific traits such as risk-taking propensity on the attitude towards becoming a business entrepreneur. This cannot be confirmed for social entrepreneurship. As it has not been proven on a large-scale basis, this could mean, that as previously suggested, the set of traits established as typically entrepreneurial do not have an effect on entrepreneurial intention formation. Traits may affect a propensity to actually become an entrepreneur, or entrepreneurial success, yet intentions do not show strong signs of influence by the entrepreneurial personality. Or it could be a social entrepreneurship-specific phenomena suggesting that concerning this type of entrepreneurship, intention formation is not influenced by the entrepreneurial personality. Yet, this would contradict Dreesbach's (2010) study which concludes that social and business entrepreneurs have the same levels of typically entrepreneurial character traits. It must be added that Dreesbach's study says nothing about the entrepreneurial personality of both these entrepreneurial groups compared to society in general. This study suggests that there may be none – at least not any that affect the actual intention formation process. On a cautious note, it must be added that the entrepreneurial personality construct had the lowest reliability values within the quantitative study. Hence, it is possible that these results are weakened due to measurement flaws.

While the entrepreneurial personality does not show any effects, the good results of **social responsibility** put the social entrepreneurial personality back on the map for the analysis of social entrepreneurial intention formation. Both ATB-SE and SN-SE are

strongly positively influenced by social responsibility. Hence, the general characteristic of feeling the need to help those in distress heightens both peoples' attraction towards becoming a social entrepreneur, as well as the social pressure they perceive to take this career path. Concerning the former, it is understandable that those who strive to "do good" find those jobs attractive which enable them to pursue this ideal. Hence, the effect of social responsibility on ATB-SE. Concerning the latter, the interpretation of the results is more complex. One explanation could be that those who have a high sense of social responsibility are also more socially aware and, hence, perceive higher levels of social pressure. Another could be that social responsibility often stems from being raised in a family which passes on the value of acting in a social manner. If this leads to social responsibility within the subject, it may anticipate appreciation from their family if they choose a socially oriented career path which fulfils the value they installed. Hence, they could perceive higher levels of social approval of a choice to become a social entrepreneur. These lines of thought can explain the positive effect of social responsibility on SN-SE and offer room for further work to understand this link.

Finally, the third element of the social entrepreneurial personality, **empathy**, shows unexpected results. On the one hand, while the effect of empathy on SN-SE is positive, it is also not significant. Hence, the ability to put yourself in others' shoes does not directly mean you will also tend to act in a way to fulfil others expectations. This shows that empathy is not enough to react to social pressure, you rather need a sense of responsibility to conform to a social expectation which is represented by social responsibility. On the other hand, the effect of empathy on ATB-SE is not only significant, it is also negative. This means that the higher the level of empathy is, the less attractive the subjects find the career path of a social entrepreneur. At first glimpse, this relationship is hard to understand. Yet, it is in line with Dreesbach's (2010) finding who also sees a negative relationship between becoming a social entrepreneur rather than a business entrepreneur. It is not the case that people are not empathetic – quite the contrary, a mean of 3.71 shows a generally high level of empathy in the subjects. Yet, it is not the aspect that makes people want to become social entrepreneurs rather than not. While many people may be empathic, it is the combination of empathy and social responsibility that lead people to be attracted to socially oriented fields of work.

Overall, this study confirms the effect of social entrepreneurial personality on the formation of social entrepreneurial intentions. It is one of the first studies to prove an indirect link between aspects of personality and entrepreneurial intentions via other attitude-level constructs. It also shows that personality must be considered in a differentiated manner: While those traits typically associated with the entrepreneurial personality show no effect within the model of social entrepreneurial intention formation, social responsibility, as part of the prosocial personality, affects both ATB-SE and SN-SE and, hence, large parts of intention formation.

5.3. The effect of social entrepreneurial human capital on social entrepreneurial intention formation

Regarding the model overall, social entrepreneurial human capital appears to have a distinct effect on social entrepreneurial intention formation. Specifically, it affects social entrepreneurial intentions indirectly via ATB-SE and PBC-SE. Yet, as in the case of social entrepreneurial personality, results must be differentiated by the subconstructs of social entrepreneurial knowledge/experience, social entrepreneurial skill leadership, social entrepreneurial skill creativity and social entrepreneurial skill personal relationships.

The results for **social entrepreneurial knowledge/experience** are pleasantly straight forward. It influences both ATB-SE and PBC-SE strongly – being the strongest determinant of PBC-SE and the second strongest of ATB-SE. Hence, perceived knowledge, whether it be from work experience, education or other areas, in entrepreneurship and/or the socially relevant fields of work, not only leads people to perceive becoming a social entrepreneur as more attractive, it also makes them more secure in their abilities to become one. Regarding the former, preoccupation with the subject or related tasks can lead to a degree of infatuation, resulting in a passion and, subsequently, the higher attractiveness of the field. This is expressed in higher ATB-SE values in the case of high levels of social entrepreneurial knowledge/experience. Regarding the latter, it is to be expected that a high level of perceived knowledge in related areas goes in line with a higher levels of confidence in one's related abilities. Hence, higher levels of perceived knowledge/experience also lead to higher levels of PBC-SE. In summary, this study confirms the strong importance of a high level of knowledge towards not only entrepreneurship, but also the market in which one plans to enter with a venture.

In the case of social entrepreneurial skills, data analyses have already shown that the situation is more diverse than expected, splitting the construct into three different elements: social entrepreneurial skill leadership, social entrepreneurial skill creativity and social entrepreneurial skill personal relationships. Certainly, these areas show varying effects on attitude-level TPB-constructs in the model of social entrepreneurial intention formation. While social entrepreneurial skill personal relationships has a positive effect

on ATB-SE, social entrepreneurial skill leadership and social entrepreneurial skill creativity rather affect PBC-SE.

Social entrepreneurial skill personal relationships include the skills of networking, establishing trust and listening to other people. These relate to enhanced social skills and frequently to a genuine interest in the people one is interacting with. As social entrepreneurship is a people-oriented business, those people with high levels of people-related skills, can be expected to find this career path more attractive. Hence, it is understandable that social entrepreneurial skill personal relationships leads to higher ATB-SE. It does not link to PBC-SE, maybe because people do not perceive these people skills to be necessary to successfully become a social entrepreneur.

Social entrepreneurial skill creativity concerns recognizing opportunities, working creatively and developing new products. These skills fit the typical understanding of tasks necessary in working entrepreneurially. Hence, it is not surprising that high levels of social entrepreneurial skill creativity lead to high levels of PBC-SE. However, it is not the case that having these skills also leads to the higher attractiveness of social entrepreneurship as a job. This may be due to the fact that this effect functions indirectly via PBC-SE, which is also an antecedent of ATB-SE in the model of social entrepreneurial intention formation.

Finally, the interpretation of **social entrepreneurial skill leadership** is more complex. This includes skills such as problem solving, putting plans into action or leading teams. On the one hand, it has a positive effect on PBC-SE. Entrepreneurship is often understood as a leadership role, as entrepreneurs frequently move on to lead teams within their ventures. Hence, high levels of perceived leadership skills lead to high PBC-SE. The effect of social entrepreneurial skill leadership on ATB-SE is rather confusing as it is negative. This means that people who believe they have good leadership skills find social entrepreneurship less attractive. One possible explanation is that these people believe they are equipped to lead large groups of people, for example, as managers in big corporations which makes them find the idea of functioning in a presumably smaller social enterprise less attractive. Overall, this paints the picture that the group of individuals attracted to becoming a social entrepreneur, may be quite limited in this point: they should have a perceived leadership skill level high enough to find becoming a social

entrepreneur feasible, yet not so high that they believe they should do something “bigger” with that talent.

Overall, this study confirms the effect of social entrepreneurial human capital on the formation of social entrepreneurial intentions. Rather than studying the demographic variables of prior experience or education, it focuses on the perceived knowledge/experience and skills people derive from these and other activities. These abilities show a strong indirect effect through PBC-SE and ATB-SE. Again, a differentiated view is necessary. While social entrepreneurial knowledge/experience positively affects both ATB-SE and PBC-SE, on a skill-level only social entrepreneurial skill personal relationships affects ATB-SE, while PBC-SE is driven by social entrepreneurial skills creativity and social entrepreneurial skills leadership. The latter also shows negative effects on ATB-SE so that they should be handled with care.

5.4. The effect of social entrepreneurial social capital on social entrepreneurial intention formation

Regarding the overall model, social entrepreneurial social capital appears to have a diverse effect on social entrepreneurial intention formation. While effects on ATB-SE and SN-SE are confirmed, no link is shown between social entrepreneurial social capital and PBC-SE. As previously established, one should not only differentiate between perceived knowledge on institutions and perceived network, but also the expected financial support and expected other support.

Regarding perceived **knowledge on institutions**, a positive relationship can be confirmed towards ATB-SE. The interaction with support institutions does in fact move social entrepreneurship into a more favourable light. The link to PBC-SE cannot be confirmed. Contrary to the intentions of such institutions, they do not seem to manage to improve the perceived abilities necessary to start a social enterprise. Between ATB-SE and PBC-SE, it seems that they are rather used as a source of inspiration than as a learning support. The interpretation of the effect on SN-SE is the most difficult to read. The perceived knowledge on institutions has a negative, though weak, effect on SN-SE. This means that the more people believe they know about institutions, the less approval they feel from their surrounding regarding a career path as a social entrepreneur. One possible explanation is that the interaction with these organisations makes people realize how little support and understanding one's close surroundings have for people becoming social entrepreneurs. Hence, the contact with these institutions leads to lower SN-SE. Another possible explanation is that those people who do not feel their close surrounding has an interest in their career option as a social entrepreneur are those who interact with these institutions and use them as a source of insight. This would also result in low SN-SE values. As it has diverse effects, the interaction with support institutions is to be taken with caution. It must be added that all the effects are very weak so that the overall effect of such institutions is questionable.

Results regarding one's **perceived network** are very surprising. Not only does an existing network not affect PBC-SE or SN-SE, it even has a negative effect on ATB-SE. Even though this effect is very weak, it is not in line with previous work on the importance of social networks surrounding entrepreneurs, especially in the realm of

social entrepreneurship. One possible explanation is that those people with established networks are generally well set up for future career steps and may hope that these carry them into more lucrative fields of work. Another is that concerning contact to people working in or affected by the social problem the social enterprise would deal with, their reports of the hardships of the job may make it less attractive to people considering becoming a social entrepreneur in this area.

The picture surrounding **expected financial support** is similar. Expected financial support has a positive effect on SN-SE, meaning that those people who believe their close surrounding would support their social venture financially take this as an indicator that this close surrounding would approve or expect such a behaviour from them. Moving on, expected financial support has no effect on PBC-SE. This may indicate that finances are not considered a hurdle when contemplating becoming a social entrepreneur or that they are believed to be easily accessible from other sources. No matter if financial support is expected or not, the perceived ability to become a social entrepreneur remains unchanged. Finally, expected financial support has a negative effect on ATB-SE. The line of argument here is similar to that concerning the negative effect of perceived network on ATB-SE: those people with easily accessible financial resources may come from a privileged background that leads them to strive for greater positions than the creation of a mostly small social enterprise. In this sense, high expected financial support has a negative effect on ATB-SE.

The last construct belonging to social entrepreneurial social capital, **expected other support**, shows an especially strong effect on SN-SE. As in the case of expected financial support, the expected moral support and guidance from people's surroundings is considered as an indicator for their approval or expectation that they should become a social entrepreneur. Expected other support does not affect PBC-SE or ATB-SE, meaning that the level of help expected from the people around them does not alter how attractive or feasible becoming a social entrepreneur appears to people.

In summary, social entrepreneurial social capital has a diverse effect on social entrepreneurial intentions. This is one of the first studies to analyse the indirect link between social capital and entrepreneurial intentions. This link exists via ATB-SE, PBC-SE and SN-SE. Differentiation is largely in order. While some aspects can have a positive

effect on attitude-level determinants of social entrepreneurial intentions, others lead to negative associations.

5.5. Findings on gender differences

As discussed, three of the four regressions in the quantitative study show the effects of the control variable gender. While females appear to have stronger overall social entrepreneurial intentions and find this career path more attractive, males show higher levels of PBC-SE. To analyse further potential differences, Chapter 4.4.6. showed the regressions split by gender. These results are now discussed.

Concerning the overall fit, the model explains more of the formation of females' ($R^2 = 52\%$) than males' ($R^2 = 47\%$) social entrepreneurial intentions. Interestingly, while ATB-SE has a stronger effect on intentions than PBC-SE in both cases, the effect of ATB-SE is much stronger in the case of women. This shows that females are more influenced by the personal attractiveness they assess towards an area of work, while men have a closer balance between personal attractiveness and feasibility. This pattern is also reflected in the explanatory power of the model concerning ATB-SE and PBC-SE: the model explains 58% of women's attitude towards becoming a social entrepreneur and 49% of men's, while it explains 55% of males' perceived behavioural control towards becoming a social entrepreneur and only 46% of females'. The levels of explained variance in SN-SE are very similar. Overall, while there are small differences, the model explains both female and male social entrepreneurial intention formation very well.

More explicit differences can be seen when looking into the formation of the attitude-level TPB-constructs in the model. As previously identified, regarding **ATB-SE** and controlling for control variables, females show a far larger spread of explanatory variables: variables from social entrepreneurial personality, social entrepreneurial human capital and social entrepreneurial social capital affect women's level of ATB-SE. Men's, on the other hand, is only influenced by social entrepreneurial human capital. Women base their attitude towards becoming a social entrepreneur on a wider range of variables, taking numerous factors into consideration. Men base their attitude solely on the fact that they believe they have the skills and knowledge necessary to do the job well. Besides these antecedents, both men and women largely base their attitude on SN-SE, so social approval of them becoming a social entrepreneur. PBC-SE is again only relevant for women. This indicates that while men may only associate feasibility with their personal skills and knowledge, which are separately assessed in ATB-SE formation, women

include further aspects into their evaluation of their ability to become a social entrepreneur which go beyond the skills and knowledge previously included in the regression. Hence, PBC has an additional effect. In summary, while men base their attitude on social entrepreneurship on their perceived abilities and the approval of those around them, women base it on a broad range of different factors. It should also be noted that the negative effect of leadership skills on ATB-SE is stronger for women than for men. This means that a female with a high level of perceived leadership skill is even less likely to find a career as a social entrepreneur attractive than a man with an equal perceived level of skill.

Regarding the other attitude-level TPB-constructs, differences are not as great. Split by gender, **PBC-SE** is only influenced by social entrepreneurial human capital, and not by social entrepreneurial social capital. Here, women base the feasibility on the broad concept of their knowledge in related areas, while men also specifically include creativity and leadership skills. Women do not seem to find skills relevant for making becoming a social entrepreneur feasible – in their perception knowledge is enough. Men are more critical and may see the job as a more entrepreneurial one, including several entrepreneurial skills in their feasibility assessment. One interesting finding is the effect of social entrepreneurial skill leadership. The male-specific findings go in line with the overall findings, that the group of people who fit the social entrepreneurial concept is very slim. Women, on the other side, who have low leadership skills, may actually develop higher intentions overall. Not only will a low level of perceived leadership skills not stop women from believing they could successfully become social entrepreneurs, they even find social entrepreneurship more attractive than women with high skill levels. Solely based on this variable, the typical social entrepreneur would be a female with a low perceived level of leadership skills.

The case of **SN-SE** is similar. Women perceive approval of their surrounding based on the level of expected other support from those closest to them. Men also include expected financial support. Additionally, they perceive high levels of social approval if they have high social responsibility. This could be understood in the way that women take the social approval into consideration, irrespective of their level of social responsibility,

while in the case of men, high levels of social responsibility lead them to perceive more social pressure to become a social entrepreneur.

Overall, while differences between the genders exist, there are no contradictory trends. Those aspects which have a significant effect have the same prefixes (positive or negative) in both cases. Women are more driven by their attitude towards social entrepreneurship, which they base on a broad range of aspects, while men clearly compare their abilities and the surroundings' expectations when making their decision. As an example, social responsibility makes women find becoming a social entrepreneur more attractive, while it makes men perceive a social pressure from outside to become a social entrepreneur.

6. Summary, implications and recommendations, and outlook on future research

After a brief summary of the findings, this last chapter will draw implications and formulate practical recommendations based on the results of this study. Following these, and with the limitations of the study in mind, suggestions for further research are made.

6.1. Summary of results

In Chapter 1.3., the goals for this thesis were set out. Based on five theoretical goals, practical recommendations were to be derived to enable a rise in social entrepreneurial activity. Now, a brief review of the attainment of the theoretical goals is undertaken. This can be broken down into advances for academia and relevant findings on a content-basis.

Regarding theoretical aims, the five set goals were achieved.

- First, this study offers a **theory-driven approach** to social entrepreneurship research. Developing a model based on the TPB and including additional insights from selected areas of study, such as prosocial studies or human capital theory, ensure a sound academical process. This study also delivers one of the first **empirical validations** of such a theory-based model in social entrepreneurship. It assesses a sample size of over 200 participants, which is used for **quantitative analysis**, a rare accomplishment in social entrepreneurship research to date.
- Second, this study **positions social entrepreneurship within the study area of entrepreneurship**. Social entrepreneurship is recognized as an innovative form of value creation, which positions it in the academic ‘home’ of entrepreneurship studies. This introduces social entrepreneurship to established theories and concepts, while at the same time offering new branches of study for entrepreneurship research.
- Third, this study can **confirm the applicability of the TPB within the field of social entrepreneurship**. This adds to the vast number of operational areas of this model. This study also successfully utilises the capability of the TPB to adapt and extend itself to specific areas of study, in this case social entrepreneurship.

- Fourth, this study develops a robust **model, which can be used by future researchers** to further study social entrepreneurial intention formation or specific parts of the model. It also develops numerous new constructs, e.g., social entrepreneurial knowledge/experience, for the study of social entrepreneurship in general.
- And fifth, and maybe most importantly, the study offers **detailed insights into social entrepreneurial intention formation**, which can move forward social entrepreneurship studies as a whole. These findings will be briefly reviewed in the following sections.

On a content level, there are numerous findings, which have been broadly discussed in Chapter 5. Taking a step back and adopting a bird's eye perspective, a brief review of the core findings follows:

- Regarding the classical model of the TPB, **all elements, ATB-SE, PBC-SE and SN-SE are important for the formation of social entrepreneurial intentions**. ATB-SE and PBC-SE have a direct effect, while SN-SE and PBC-SE themselves also strongly impact ATB-SE and, therefore, have an indirect effect on social entrepreneurial intention formation.
- Regarding the antecedents of the classical TPB model, again, **all three areas are of relevance for the formation of social entrepreneurial intentions** – social entrepreneurial personality, social entrepreneurial human capital, and social entrepreneurial social capital. Yet, the effect of the antecedents is more differentiated than expected, some elements showing positive effects and others not.
- Regarding social entrepreneurial personality, the **sense of social responsibility** has a prominent indirect effect on social entrepreneurial intention formation through ATB-SE and SN-SE.
- Regarding social entrepreneurial human capital, **perceived knowledge/experience** has the most apparent indirect effect on social entrepreneurial intentions through ATB-SE and PBC-SE.

- Regarding social entrepreneurial social capital, **perceived other support** has a notable effect on social entrepreneurial intentions formation, indirectly through SN-SE, which strongly shapes ATB-SE.
- The selected control variables of **age, education, experience, and role models** **have no or only minor effects** on social entrepreneurial intention formation.
- The control variable **gender shows strong effects** on multiple levels. Hence, splitting the data by gender, the study shows that there are clear differences between the intention formation of females and males. In general, **females' social entrepreneurial intention formation is far more differentiated**, while in men it is driven by a smaller number of constructs.

6.2. Implications and recommendations

Based on the theoretical and content-based findings of the study, practical recommendations can be made. Now that the validated model has shown what specifically affects the formation of social entrepreneurial intentions, implications must be drawn to actually put the findings into practice. First, a brief detour is taken into the realm of entrepreneurial and particularly social entrepreneurial education, as this is an area where findings of this study can be applied. Second, specific recommendations for these areas are made, based on the results of this study. These include practical suggestions on which content classes on social entrepreneurship could include.

6.2.1. Entrepreneurial and social entrepreneurial education

By understanding how social entrepreneurial intentions are formed, practitioners, organisations, business schools and governments can go one step further in ensuring the growth of social entrepreneurship in society. As mentioned in the initial Chapter 1.1., one option to utilize the findings of the study is to adapt educational programs accordingly. Such programs can be used to govern and steer the future development of social entrepreneurship in practice. Here, researchers in business entrepreneurship have called for more emphasis on the early development of entrepreneurs in order to identify the determinants of their formation more precisely and use this information in education (e.g., Frank, Lueger, & Korunka, 2007). The results of this study can be considered as such insights on the formation of social entrepreneurs and should, hence, be used in shaping social entrepreneurial education.

Such calls for improved or adapted educational programs are also made in social entrepreneurship specific research. In this sense, Light (2005) calls for research to identify the skills necessary to behave as a social entrepreneur, as these can be taught in schools or universities. He stresses this need for advancing social entrepreneurship through education in his later work (e.g., Light, 2009). Tracey and Phillips (2007) mention new education needs as social entrepreneurs and people looking at CSR careers are embarking on entrepreneurship courses. Specifically, Thompson, Alvy and Lees (2000) welcome courses focused on confidence building and leadership skills for people

with volunteering experience, as these are areas in which they can learn from successful role models and professionals to make the move to social entrepreneurship.

A critical reflection on entrepreneurship education

Before focusing on social entrepreneurial education, it must be mentioned that the mere idea and effectiveness of teaching entrepreneurship is widely debated in entrepreneurship research (Walter & Walter, 2008). As discussed in Chapter 3.2.4.3., some studies show no causal links between entrepreneurial education and entrepreneurial behaviour, while others do.

The majority of studies do in fact show that there is a significant relationship between entrepreneurial training and the propensity to become an entrepreneur. In this study, the control variable of education shows no effect on social entrepreneurial intention formation. Yet, this does not mean that education is not important – what it does show, is that education on its own is not enough. Simply taking a relevant course will not make a difference. It depends on what kind of course is taken, how it is taught, and how it changes the perception of the individual. Similarly, Krueger (2003) recognized that transferring skills may be important for the skills as such but that it seems more important to transmit both skills and belief in those skills, so that the skills actually affect intentions through underlying attitudes. So rather than focus on the discussion of the relevance of education, the lessons which can be gained from this study focus on the *content* courses should pass on to improve participants' intentions to become social entrepreneurs. If these must be taken within formalised education programs is another discussion, which will not be answered here. What is clear is that much of the relevant content *can* be passed on through formalized education programs – which is why they offer great possibilities to shape the future number of social entrepreneurs.

The TPB as a model to adapt educational programs

Seeing that the current model of social entrepreneurial intention formation is based on the TPB is of advantage when assessing insights for educational programs. The TPB has been used in numerous studies to adapt courses or to show the efficacy of educational

programs when it comes to entrepreneurship. As Fayolle, Gaillly, and Lassas-Clerc (2005) detect, the TPB can point out predictors of entrepreneurial behaviour which can be shaped through education. Likewise, Liñán (e.g., Liñán, 2008; Liñán, Rodríguez-Cohard, & Rueda-Cantuche, 2010) uses insights from several TPB-based studies to provide advice for educational institutions. Alternatively, researchers have used TPB-based intentional models before and after entrepreneurship courses to study the effect the course had on entrepreneurial intentions. Here, Müller (2008a) comes to the conclusion that it is possible to promote entrepreneurial intentions through teaching and suggests which elements courses should approach. She considers that especially PBC can be affected, as well as ATB, and that the most difficult element to shape is SN. Souitaris, Zerbinati, and Al-Laham (2007) run a similar study and measure a TPB-model at the beginning and the end of a course. Their analyses show that after the course both the entrepreneurial intentions as well as the SN are increased. Here, there is no significant rise in the rates of PBC or ATB. It can be added that both before and after the course, all three components prove to have an effect on students' self-employment intentions. These results show, on the one hand, that the results of TPB-based studies can help to shape entrepreneurship courses – and, hence, also social entrepreneurship courses. On the other hand, the mixed findings suggest that the mere fact a course is taken is not of relevance – it matters what happens within the course and what resonates with the participant. And this is where the findings of this study can be put into practice.

A side note on teaching methods

Besides content, some initial suggestions can also be made on the way things are taught in social entrepreneurship courses. In the entrepreneurship realm, there are various suggestions on how to shape classes – and they are as broad as they are long. Müller (2008a) presents three types of learning which may be helpful in teaching entrepreneurship – experimental learning, changing behaviours and attitudes, and student-oriented learning. Krueger (2003) suggests that entrepreneurship classes should use constructive methods so students teach themselves how to organize their knowledge. This principle follows the idea of 'Finding the questions' rather than 'Learning the answers'. Kourilsky (1995) expresses how important entrepreneurship education is and

how ‘wrongly’ it is currently being done, focusing more on management skills than on the skills needed to be an entrepreneur (e.g., opportunity recognition skills). Peterman and Kennedy (2003) stress that entrepreneurial education should be offered in high school and not only in advanced studies. And ultimately, Gasse and Trembley (2006) offer an entire list of developmental activities and academic activities which could foster entrepreneurship (e.g., business cases, meet the entrepreneur...). This demonstrates that this is an area of research of its own and that this study alone cannot offer the ideal teaching method for social entrepreneurship. Yet, when applicable, first tentative suggestions can be made on how to teach some of the content if the data from the study offers insights into what tools may be the best.

The current state of social entrepreneurial education

J. Gregory Dees is considered to be the father of social entrepreneurial education (Bornstein & Davis, 2010). As reported, he wanted to offer a social entrepreneurship course at Harvard Business School as early as 1989, yet states that “I was cautioned not to do that” (Eakin, 2003). By the mid-nineties he was allowed to and launched the (presumably) first social entrepreneurship course at an American business school. Today the vast majority of business schools offer social entrepreneurship related courses.

To gain a perspective of the current courses on offer, various sources can be consulted. Ashoka offers an overview of social entrepreneurship courses. They differentiate between the nascent, evolving and established involvement of universities (The Global Academy for Social Entrepreneurship, n.d.). They have also published a teaching resources handbook (Brock, 2008), showing which programs exist to date, what their exact content is, and pointing teaching staff towards resources such as teachers’ networks and case studies to enhance class room quality. Similarly, Net Impact – an organisation for students with an interest in sustainable and socially oriented careers – also offers an annual overview of graduate programs offering relevant courses (Net Impact, 2010).

As numerous researchers (e.g., Muscat & Whitty, 2009) and the boom in social entrepreneurship in theory and practice suggest, the interest for social entrepreneurial education is very much on the rise. Yet, the discussion is still broad about *what* and *how* it should be taught – and the suggestions made to date are not research-based. A study

conducted by Schlee, Curren, and Harich (2009) shows that within the USA, the teaching landscape of social entrepreneurship is diverse, faculty is often mixed from different departments, sometimes there are various courses, sometimes outside the business school, and the content is often more anecdotal than theory. A brief review of the curricula of current social entrepreneurship courses (e.g., Colorado State University, Harvard University, IESE business school, NYU Stern) shows that they are very much built up like classical introductory business entrepreneurship courses, yet with a social twist. They teach business plans and models, funding options, organisational issues etc. Additionally, definitions are discussed. Mostly, the courses are classroom-based, including only limited case studies and almost no field work. An exception is Harvard's course "Entrepreneurship in the social sector", which includes writing a paper together with an organisation of one's choice which is an example of field work. IESE's "Social Entrepreneurship – Creating Economic *AND* Social Value" also invites award-winning social entrepreneurs into the classroom which can enhance the role model function.

Some initial work offers creative sets of ideas for social entrepreneurship courses. Tracey and Phillip (2007) offer six ways to ensure social entrepreneurship education:

- 1) integrate social entrepreneurship in commercial entrepreneurship programs (e.g., with social entrepreneurship cases)
- 2) invite social entrepreneurs as speakers
- 3) ask students to write social entrepreneurship cases
- 4) ask students to write a business plan for a social enterprise
- 5) encourage students to consult social enterprises
- 6) encourage students to take internships in social enterprises

Schlee, Curren, and Harich (2009) see specific needs which they believe should be included in marketing courses: translating an awareness of social problems into a social enterprise (opportunity identification, positioning and developing a value proposition), and specific research methods. Yet, are these the right approaches? This cannot be answered based on this brief review. What can be stated is that none of the courses or suggestions shows signs of being focused on prior research on what is most needed by

budding or potential social entrepreneurs. So what can be learnt from this study to further improve this?

6.2.2. Learnings for social entrepreneurial education

As previously mentioned, the aim of this study was not to develop a social entrepreneurship course. Nonetheless, such a program can set the stage to show how findings from the present study can be used in practice to attempt to increase levels of social entrepreneurship. In this sense, the study can pinpoint which aspects should be focused on in education and make initial suggestions on how this can be done.

There are certain areas of study which are entrepreneurial-prone, like business (Frank, Korunka, & Lueger, 2002). Therefore, these suggestions are made for a social entrepreneurship course within business studies on a Master's level, e.g., within an MBA course. As seen above, numerous schools have launched programs accordingly.

The resulting model of social entrepreneurial intention formation makes it hard to offer simple, straightforward advice. From a practical point of view, the 'ideal' result would have been only one or two constructs showing effects as validated antecedents of social entrepreneurial intention. In such a case, all practical efforts can be directed to these specific factors to full effect, making the increase of social entrepreneurial levels quite simple. Yet, the reality of this study is different. Social entrepreneurial intention formation proves to be a complex issue. It is shaped by multiple, heterogeneous constructs, some showing diverse effects. Hence, it is more a case of 'everything' is somehow important. On a theoretical level, this is quite positive, offering a broad field for future research and a rich setting for advances. On a practical level, this offers a challenge in forming tangible courses of action. This thesis accepts this challenge. To offer maximum impact on social entrepreneurial action, in a first step, the focus should be on those elements that show the strongest positive effect on multiple levels.

Within the classical TPB-model **ATB-SE, PBC-SE and SN-SE should be fostered.** No specific focus can be identified as all constructs show important contributions to the formation of social entrepreneurial intentions. Nor can one of the antecedent bundles of social entrepreneurial personality, social entrepreneurial human capital, or social

entrepreneurial social capital be put forward as they all have strong effects on the classical model. So, it is necessary to look even deeper and find the specific constructs showing the strongest effects. These can also be expected to be more tangible through external efforts.

When it comes to direct the **antecedents** of ATB-SE, PBC-SE, and SN-SE, the **primary focus** should be on the strongest positive influences: social responsibility, perceived social entrepreneurial knowledge/experience, and expected other support.

- One core focus should be fostering **social responsibility**. This factor influences ATB-SE both directly and indirectly through SN-SE, so it is one of the strongest effects on the perceived attractiveness of the career of a social entrepreneur. Yet how to foster social responsibility? As with many aspects of personality, it is worth discussing how much this can be shaped through adult education. In this case, a more general plea could be made to *increase efforts in children's education to heighten social responsibility*⁴⁰. At any age, an *immersion in a social cause* can help. By experiencing people in need, triggers are launched to help these people. As discussed in Chapter 3.2.2.1.2., these relevant trigger events are mentioned by numerous active social entrepreneurs. Here, a worry can be the negative effect the active preoccupation with a social cause can have. Dealing with social problems can directly lead to frustration or make people sad which may deter them from actively helping rather than encouraging them to do so. Johnson (2005) deals with this phenomenon in his paper on empowering students. He comes to the conclusion that, besides speaking of the existing problems, to motivate students it is important to *actively discuss and develop solutions* with them. Like this, they gain a positive note from classes rather than a saddening one. It shows them that they too can 'make a difference'. And on a note outside the educational system, general *media communication of necessity to help others* or the situation of those in need can help arouse social responsibility.
- The second area of focus should be increasing **perceived social entrepreneurial knowledge/experience**. This factor strongly influences both ATB-SE and PBC-

⁴⁰ There is specific research on youth entrepreneurial education, e.g., Mariotti & Rabuzzi (2009)

SE, so it affects social entrepreneurial intention formation ‘from both sides’, especially through PBC-SE. This factor deals with the perceived level of knowledge in either entrepreneurship or the social field of relevance, or specifically social entrepreneurship. As described, there should be two ways to foster this: practical experience and education. And as discussed, mere experience or education do not help, the participants need to gain knowledge and experience from it, so expertise and insight, and in-depth knowledge. One way would be to encourage or invite students to *actually work in a social enterprise during the course*. This could be done in the shape of field work, dedicating some hours of class time to work within the companies. In the Harvard course mentioned above, students must complete a study together with a social enterprise as part of their course work. Such intense interaction can foster true insight and hopefully increase the perceived level of knowledge and experience. Rather than work within a social enterprise, an outside-in perspective through courses could also help. Here, *guest speakers should be invited or very detailed case studies should be reviewed*. They must be realistic and holistic, in the sense that participants take a sense of expertise from them. Overall, the knowledge and expertise should be fostered by very practical elements in social entrepreneurship courses. It is also worth noting that if the aim is to increase social entrepreneurial intention formation, these aspects should be given priority over skill-focused education which is often the aim of courses to date.

- The third strong element is the **expected other support**. This is the main factor influencing SN-SE. It deals with counselling, motivation and personal assistance which people expect from their close surroundings. To ensure this, three things are needed. First, a generally positive attitude of the surrounding towards social entrepreneurship will increase the chances of the surrounding offering help (this also has a direct effect on SN). This first point is the easiest to target by running *publicity campaigns, actively investing in positive media* and, hereby, fostering acceptance for the importance and credibility of a career as a social entrepreneur. Second, a caring relationship between the person and their surrounding is necessary so that support is offered at all. And third, an openness to listening to the positive reinforcement from one’s surroundings is necessary for the potential

social entrepreneur. The two latter points are rooted very deep in each person's psychology and are most likely hard to target within an educational course. What the educational program could do, nonetheless, is to *raise awareness that help can be drawn from one's surroundings and show positive examples*. This can include forstering an entrepreneurial culture within the educational institution itself (Volkman, 2009).

Looking at the three examples, they are very much shaped both on a general societal level as well as a personal education level. This shows that education must go hand in hand with the messages portrayed around the course, whether through other elements of the university or through general media. *Society and communication sources must be included* in these efforts.

The second wave of efforts should include those elements which also show positive effects on social entrepreneurial intention formation, even though they are not as strong as the three prior elements. In this case, they are two skills: **skill personal relationships and skill creativity**. One is about dealing with personal interactions, the other with creative thinking. While much of this can also be learned on-the-job, they are both core skills which can be passed on in educational programs. The former mostly through specific *coaching of interpersonal skills*. This has not been a focus of universities to date. It is surely best done within smaller groups and with a professional facilitator. The latter can be passed on using *creativity-enhancing tools*. These are developed in numerous areas, e.g., when it comes to brainstorming or from specific creativity theory. Then they can be used to e.g., train the opportunity recognition process. The development and refinement of skills is one of the core goals previously discussed in the area of entrepreneurial education, e.g., Volkman (2009) sees it as a core mission of entrepreneurship education in higher education.

Figure 30 shows the different suggested efforts.

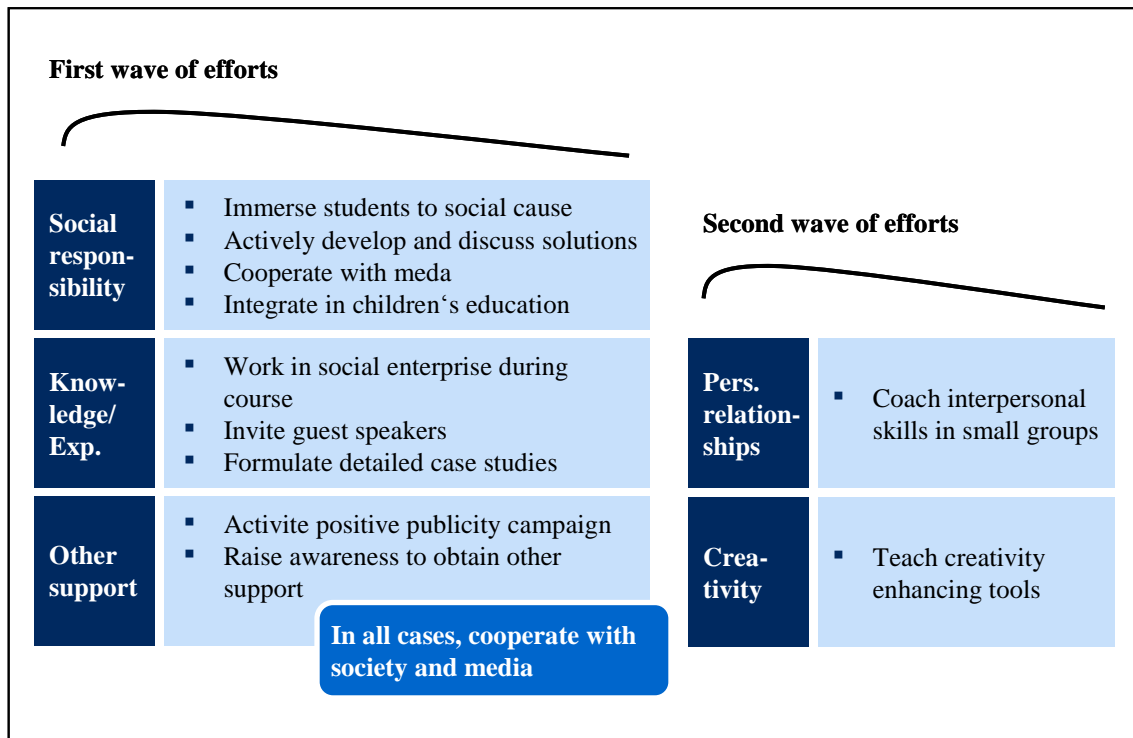


Figure 30: Waves of possible efforts to implement findings of this thesis

It is difficult to give advice on the **elements which show negative effects**. Two have a purely negative effect (empathy, perceived network), while expected financial support, perceived knowledge on institutions, and skill leadership have both positive and negative effects within the model. **Empathy** should simply not be targeted. It seems that various parts of society have a relatively high level (based on the median in the study), so no more is needed. The findings are in line with previous work by Dreesbach (2010).

For the rest, the results are surprising and not necessarily in line with previous work. Quite the contrary: previous studies have suggested that they are relevant for social entrepreneurship. Yet maybe, they are simply not relevant for the intention formation process, and come into play later in the social entrepreneurship creation process. This differentiation has not been made to date. In the following paragraphs, each factor is briefly discussed.

The negative effect of **perceived networks** is surprising. Hence, the recommendation cannot be to stop networking – it may simply be that the relevance of networks comes to light later in social enterprise founding. What can be suggested is that if social

entrepreneurial intentions are to be fostered, the focus should lie on *institutional contacts within formalized groups* rather than personal networks. While these institutions do show diverse effects, the positive effects they have are stronger so that, in general, this type of interaction can be encouraged. The **skill of leadership** and **expected financial support** also show both positive and negative effects, whereas here the negative effect is stronger. It is unclear what underlies this dynamic. One suggestion made above is that those people who feel they have leadership talent or secure financial funding may feel called to greater things, however this is a mere assumption. One learning that can be derived is that these aspects should not be focused on. Especially since a potential lack of these skills does not seem to be a barrier to social entrepreneurial intention formation. So, e.g., *funding options should not be a strong focus of the courses that aim primarily at increasing social entrepreneurial intentions* – these topics seem to become relevant when the decision has already progressed. Lacking **leadership skills** also do not seem to prevent people from forming intentions. These are topics which may be relevant in later stages – so focus should be given to them when the organisations exist. *They should be included in the coaching of existing or budding social entrepreneurs* rather than those still pondering what to do.

One final note can be made on **gender differences**. As discussed, men and women have different approaches in the development of social entrepreneurial intentions, women being far more complex than men. Yet, it is recognized that the same elements have the same direction of effect. So, first, applying the same methods to both will not have a negative effect on either of them. In general, women have more propensities to become social entrepreneurs than men. There are two ways to deal with this finding. Either, this can be accepted as a reality (e.g., due to a better ‘fit’ with female job ideals). In this case, *courses and marketing could be especially targeted at females*. Women’s workshops, female speakers or female teaching staff could be assessed to create an even stronger appeal for women. In this case, the approach would be tailored for the traditional target population. Looking at the purely female model, the steps are also more straightforward, as no constructs show positive and negative effects at the same time. It is clear that the focus should again be on social responsibility, perceived social entrepreneurial knowledge/experience, and expected other support, but paired with work together with formal institutions and specific role models. Alternatively, the second way to deal with

this current state is to try and change it. If policy makers believe it to be fruitful or even necessary to have an increased gender mix in social entrepreneurship, *specific tasks must be undertaken to focus on men*. As discussed, men are driven by their perception of their human capital, outside perception of social entrepreneurship and social responsibility. These should be the core of support work if more men need to be moved into social entrepreneurship.

6.3. Limitations of research and outlook on future research

It is the aim of this study to increase insights on social entrepreneurial intention formation and, hopefully, it has come a long way in doing so. Nonetheless, there are limitations which must be mentioned and issues still open for future research. These relate to the model, the research method, and the practical implications of the study.

When interpreting the results of the current study, a level of caution should be maintained. While the **sample size** of 203 is large enough to statistically validate the constructs and their causal relationships, it is a relatively small number of people nonetheless. For the initial establishment of the model, this is acceptable as it served to confirm the basic format, test the applicability of the TPB, etc. Yet, to further underpin insights on the level of the general public and gain more insights into specific effects, follow-up studies should be conducted with larger, more versatile samples. This should also include **control groups**, other than the business students selected for this study.⁴¹ They could point out potential differences between different groups within society. Considering that the present recommendations are phrased specifically for business students, the lack of a control group other than business students can be accepted in this case. Also, for the current study, the scarce research resources focussed on realising a basic sample as large as possible, to ensure a sample size large enough to statistically validate the model. This was achieved, as discussed in Chapter 4.1.2. Nonetheless, looking forward, to be able to generalize the results, and form recommendations for the ample public, testing with broader samples of subjects, and including various control groups is encouraged.

The study was also conducted only in Germany. As discussed in Chapter 1, a core next step would be to take the validated model and run an **international comparison study**. Like this, trends across cultures could be established.

The model also offers room for specification and extension. On the one hand, now that the broad frame has been established, **deep dives on individual constructs or construct bundles of the model**, e.g., the important factors of perceived social entrepreneurial knowledge/experience, should be conducted to further understand the underlying

⁴¹ Numerous studies using the TPB in entrepreneurship studies successfully test models without applying control groups, e.g., within the doctoral thesis of Müller (2008a).

dynamics. Current ambiguities could also be analysed within focused studies. As discussed in the previous chapters, some of the factors in this model display effects which are hard to grasp (e.g., empathy or skill leadership). Here, detailed studies could help explain the effects. On the other hand, rather than further elaborate on existing parts of the model, the **model should be extended**. As mentioned in Chapter 3.2., the current model focuses on the individual-based factors effecting social entrepreneurial intention formation. As briefly pointed out at the time, numerous **external effects** such as the founding climate and legislation can be expected to determine elements of intention formation. Therefore, the other ‘half’ of the model, which complements the current internal factors with new external ones, should be developed and tested.

Moving on, it must be pointed out that the current model is static, not dynamic (Brännback, Krueger, Carsrud, & Elfving, 2007). This offers room for studies looking further than only one point of time. First, this can include **tracking levels of intention over the course of time**. As has been done in entrepreneurship studies, the effects of specific and monitored social entrepreneurial work experience or education could be analysed by accompanying the participants prior, during, and after the experience. Second, the actual founding behaviour could be monitored. As discussed in Chapter 2.2.1., intention levels offer very good indications for future behaviour, yet the levels vary in different areas. Therefore, the future founding activity of people with different levels of intention could be monitored to gain first insights into **the intention-behaviour link in social entrepreneurship**. And third, the **relationship between the intention formation phase and other phases such as opportunity recognition phase** should be studied.

Finally, while the study uses its findings to make initial suggestions for social entrepreneurial education, it cannot make the claim of establishing a **full education program or course structure**. However, this is of great importance and should be pursued in the future. This study could test the suggestions made above for their applicability. General recommendations should also be formulated for policy makers concerning the integration of social entrepreneurship education above and beyond singular courses on an adult educational level. For example, it may be that schools should also be involved in this enriching process.

APPENDIX**Appendix 1. – Social entrepreneurship definition analysis**

Criteria for the analysis of definitions:

- 1: Centers around the person social entrepreneur
- 2: Centers around the entity social enterprise
- 3: Includes revenue generation
- 4: Points out social mission
- 5: Names innovation
- 6: Names opportunity
- 7: Names resources
- 8: Names network
- 9: Speaks of “catalytic” change or transformation
- 10: Specifies addressees
- 11: Limits itself to NPOs
- 12: Names various sectors
- 13: Speaks of entrepreneurial elements, or activity on markets
- 14: Mentions market failure as a setting
- 15: States necessity of the launch of a new venture

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Alter, 2007	"A social enterprise 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" (p. 12)		x	x	x	x										
Alvord, Brown, & Letts, 2004	"[...] social entrepreneurship that creates innovative solutions to immediate social problems and mobilizes the ideas, capacities, resources, and social arrangements required for sustainable social transformations" (p. 262)				x	x		x		x						
Ashoka, 2009	"Social entrepreneurs are individuals with innovative solutions to society's most pressing social problems. They are ambitious and persistent, tackling major social issues and offering new ideas for wide-scale change" (n/a)	x			x	x					x					
Austin & Wei-Skillern, 2006	"We define social entrepreneurship as innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors" (p. 2)				x	x								x		
Bornstein, 2004	"[...] people who solve social problems on a large scale [...] Transformative forces: people with new ideas to address major problems who are relentless in the pursuit of their visions, people who simply will not take "no" for an answer, who will not give up until they have spread their ideas as far as they possibly can" (p. 1f.)	x			x						x					

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Boschee & McClurg, 2003	"Any earned-income business or strategy undertaken by a non-profit distributing organisation to generate revenue in support of its charitable mission. 'Earned income' consists of payments received in direct exchange for a product, service or a privilege" (p. 7)		x	x	x							x				
Brinkerhoff, 2000	"Social entrepreneurs are people who take risk on behalf of the people their organization serves"; constantly looking for new ways to serve; are willing to take reasonable risk; understand the difference between needs and wants; understand that resource allocations are really stewardship investments; weigh the social and financial return; keep mission first; use of forprofit business techniques in the not-for-profit environment (p. 1f.)	x		x	x				x			x				
Canadian Centre for Social Entrepreneurship, 2001	"[...] innovative dual bottom line initiatives emerging from the private, public and voluntary sectors (can be for profits doing well by doing good; or entrepreneurial approaches in non-profits)" (n/a)		x	x	x	x							x			
Cho, 2006	"[...] a set of institutional practices combining the pursuit of financial objectives within the pursuit and promotion of substantive and terminal values" (p. 36)			x	x											
Crutchfield & McLeod Grant, 2008	"[...] highly adaptive innovative leaders who see new ways to solve old problems and who find points of leverage to create large-scale systematic change" (p. 4); "[...] they create social value; they relentlessly pursue new opportunities; they act boldly without being constrained by current resources; they innovate and adapt; and they are obsessed with results" (p. 24f.)	x			x	x	x	x		x						

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Dart, 2004	"The changes and transformations from conventionally understood nonprofit to social enterprise are stark: from distinct nonprofit to hybridized nonprofit-for-profit; from a prosocial mission bottom line to a double bottom line of mission and money; from conventionally understood nonprofit services to the use of entrepreneurial and corporate planning and business design tools and concepts; and from a dependence on top-line donations, member fees, and government revenue to a frequently increased focus on bottom-line earned revenue and return on investment" (p. 415)		x	x	x								x		x	
Dees, 1998b	"Social entrepreneurs play the role of change agents in the social sector, by: • Adopting a mission to create and sustain social value (not just private value), • Recognizing and relentlessly pursuing new opportunities to serve that mission, • Engaging in a process of continuous innovation, adaptation, and learning, • Acting boldly without being limited by resources currently in hand, and • Exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created" (p. 4)	x			x	x	x	x								
Desa, 2007	"[...] a term used to describe innovative approaches to solve social problems" (p. 4)				x	x										
Dorado, 2006	"[...] for-profit organizations that do good while doing well financially; or non-profit organizations that self-finance their do-good operations" (p. 219)		x	x	x											
Durieux & Stebbins, 2010	"Social entrepreneurs execute innovative solutions to what they define as social problems" (p. 9)	x				x										

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Elkington & Hartigan, 2008	"They attack intractable problems, take huge risks, and force the rest of us to look beyond the edge of what seems possible. They seek outlandish goals, [...], often aiming to transform the systems whose dysfunctions help create or aggravate major socioeconomic, environmental, or political problems. In doing so, they uncover new ways to disrupt established industries while creating new paths for the future" (p. 2)	x			x	x										x
Faltin, 2009	"[...] a concept that seeks to describe how social problems and social needs can be addressed with tools and methods of business entrepreneurship" (p. 11)				x										x	
Farmer & Kilpatrick, 2009	"[...] formally or informally generating community associations or networking that produced social outcomes" (p. 3)	x			x					x						
Fowler, 2000	"Social entrepreneurship is the creation of viable (socio-)economic structures, relations, institutions, organisations and practices that yield und sustain social benefits" (p. 649)			x	x					x						
Frances, 2008	"A social entrepreneur is not merely someone who is innovative in terms of delivering a service while still relying for funding on philanthropic donations or government grants [...] locates the interface between a social goal and building a consumer base for that service that delivers that goal" (p. 7); "[...] it means more than just business acting ethically or working with charities, or charities embracing business principles. For me, social enterprise is the marriage between the market and the social purpose. People buy the enterprise's product or service because it will save them money and give them something they want within the context of the market economy" (p. 152)	x	x	x	x										x	

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Johnson, 2000	"Social entrepreneurship is emerging as an innovative approach for dealing with complex social needs. With its emphasis on problem-solving and social innovation, socially entrepreneurial activities blur the traditional boundaries between the public, private and non-profit sector, and emphasize hybrid models of for-profit and non-profit activities" (p. 1f.)			x	x	x							x			
Leadbeater, 1997	"These social entrepreneurs are creating innovative ways of tackling some of our most pressing and intractable social problems [...] They take under-utilised and often discarded resources - people and buildings - and re-energise them by finding new ways to use them to satisfy unmet and often unrecognised needs" (p. 8)	x			x	x		x							x	
Leppert, 2008	"Social Entrepreneurs in Deutschland sind Menschen, die eine konkrete am Geimwohl orientierte Aufgabe erkennen, eine für sich oder die jeweilige Zielgruppe neue Lösungsidee dafür entwickeln und in eigener Verantwortung den Schritt von der Idee zur Umsetzung gehen" (p. 19)	x			x	x										
Light, 2005	"A social entrepreneur is an individual, group, network, organization, or alliance of organizations that seeks sustainable, large-scale change through pattern-breaking ideas in what and/or how governments, nonprofits, and businesses do to address significant social problems" (p. 17)	x			x	x				x			x			
MacMillan, 2003	"It's a process whereby the creation of new business enterprise leads to social wealth enhancement so that both society and the entrepreneur benefit" (p. 1)		x	x	x											x

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Mair & Marti, 2006	"[...] a process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/or address social needs" (p. 37)				x	x	x	x		x						
Mair & Noboa, 2006	"[...] involves innovative approaches to address issues in the domains of education, environment, fair trade, health and human rights and is widely regarded as an important building block of the sustainable development of countries" (p. 121)				x	x										
Mair, Robinson, & Hockerts, 2006	"[...] a wide range of activities: enterprising individuals devoted to making a difference; social purpose business ventures dedicated to adding for-profit motivations to the nonprofit sector; new types of philanthropists supporting venture capital-like 'investment' portfolios; and nonprofit organizations that are reinventing themselves by drawing on lessons learned from the business world2 (p. 1)				x											
Martin & Osberg, 2007	"We define social entrepreneurship as having the following three components: (1) identifying a stable but inherently unjust equilibrium that causes the exclusion, marginalization, or suffering of a segment of humanity that lacks the financial means or political clout to achieve any transformative benefit on its own; (2) identifying an opportunity in this unjust equilibrium, developing a social value proposition, and bringing to bear inspiration, creativity, direct action, courage, and fortitude, thereby challenging the stable state's hegemony; and (3) forging a new, stable equilibrium that releases trapped potential or alleviates the suffering of the targeted group, and through imitation and the creation of a stable ecosystem around the new equilibrium ensuring a better future for the targeted group and even society at large" (p. 35)				x		x			x						x

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Moray, Stevens, & Crucke, 2008	"[...] a global phenomenon that employs innovative approaches to addressing social issues with the aim to improve benefits to society" (p. 3)				x	x										
Moske, 2008	"Social entrepreneurs sind Menschen, die sich mit unternehmerischem Engagement innovativ, pragmatisch und langfristig für einen bahnbrechenden gesellschaftlichen Wandel einsetzen" (p. 186f.)	x			x	x				x				x		
Nicholls, 2006b	"[...] any venture that has creating social value as its prime strategic objective and which addresses this mission in a creative and innovative fashion. Whatever organisational form [...] is irrelevant" (p. 11)		x		x	x										
Peredo & McLean. 2006	"Social entrepreneurship is exercised where some person or group: (1) aim(s) at creating social value, either exclusively or at least in some prominent way; (2) show(s) a capacity to recognize and take advantage of opportunities to create that value ("envision"); (3) employ(s) innovation, ranging from outright invention to adapting someone else's novelty, in creating and/or distributing social value; (4) is/are willing to accept an above-average degree of risk in creating and disseminating social value; and (5) is/are unusually resourceful in being relatively undaunted by scarce assets in pursuing their social venture" (p. 64)	x			x	x	x	x								
Perrini & Vurro, 2006	"[...] a dynamic process created and managed by an individual or team (the innovative social entrepreneur), which strives to exploit social innovation with an entrepreneurial mindset and a strong need for achievement in order to create a new social value in the market and community at large" (p. 78)	x			x	x				x				x		

Source	Definition	Criteria																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
Perrini, 2006	"[...] entails innovations designed to explicitly improve societal well-being, housed within entrepreneurial organization that initiate, guide or contribute to change in society" (p. 14)				x	x								x						
Pomerantz, 2003	"[...] can be defined as the development of innovative, mission-supporting, earned income, job creating or licensing, ventures undertaken by individual social entrepreneurs, nonprofit organizations, or nonprofits in association with for profits" (p. 25)				x	x	x													
Reid & Griffith, 2006	"[...] social enterprise - an organisation that aims to achieve profit, through market activity, and social benefit, through a second bottom line" (p. 2)				x	x	x													
Roberts & Woods, 2005	"[...] the construction, evaluation and pursuit of opportunities for transformative social change carried out by visionary, passionately dedicated individuals" (p. 49)																			
Robinson, 2006	"[...] a process, that includes: the identification of a specific social problem and a specific solution (or a set of solutions) to address it; the evaluation of the social impact, the business model and the sustainability of the venture; and the creation of a social mission-oriented for-profit or a business-oriented nonprofit entity that pursues the double (or triple) bottom line" (p. 95)																			

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Skoll Foundation, 2009	"Entrepreneurs are essential drivers of innovation and progress. In the business world, they act as engines of growth, harnessing opportunity and innovation to fuel economic advancement. Social entrepreneurs act similarly, tapping inspiration and creativity, courage and fortitude, to seize opportunities that challenge and forever change established, but fundamentally inequitable systems. Distinct from a business entrepreneur who sees value in the creation of new markets, the social entrepreneur aims for value in the form of transformational change that will benefit disadvantaged communities and, ultimately, society at large. Social entrepreneurs pioneer innovative and systemic approaches for meeting the needs of the marginalized, the disadvantaged and the disenfranchised – populations that lack the financial means or political clout to achieve lasting benefit on their own" (n/a)	x			x	x	x				x					x
Social Entrepreneurship, n.d.	"Social entrepreneurship is the work of a social entrepreneur. A social entrepreneur is someone who recognizes a social problem and uses entrepreneurial principles to organize, create, and manage a venture to make social change. Whereas a business entrepreneur typically measures performance in profit and return, a social entrepreneur assesses success in terms of the impact s/he has on society as well as in profit and return. While social entrepreneurs often work through nonprofits and citizen groups, many now are working in the private and governmental sectors and making important impacts on society" (n/a)	x		x	x								x	x		x
Spear, 2006	"[...] social enterprises, i.e. traing organizations within the social economy (co-operatives, mutuals, community business, and voluntary or not-for-profit organisations)" (p. 400)		x	x	x								x			

Source	Definition	Criteria															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Sylter Runde, 2004	"Ein Social Entrepreneur ist eine Unternehmerpersönlichkeit, • die eine nicht oder bisher nur unzureichend gelöste gesellschaftliche Aufgabe übernimmt, • die bei der Aufgabenerfüllung keine finanzielle Gewinnerzielung anstrebt, sondern mit der bestmöglichen Erfüllung der selbst gestellten Aufgabe gesellschaftlichen Erfolg anstrebt, • dessen Wertebezüge auf der Wahrung der Menschenwürde und der demokratischen Rechte begründet sind, • die für die Aufgabenerfüllung eine geeignete Organisation benötigt, welche eine nachhaltige Entwicklung für die Gesellschaft anstrebt, • die weitere interessierte Personen zur Mitwirkung motivieren kann und • die notwendigen finanzielle und materielle Ressourcen anzieht. Social Entrepreneurs sind Menschen, die sich mit unternehmerischem Engagement innovativ, pragmatisch und langfristig für einen bahnbrechenden gesellschaftlichen Wandel einsetzen" (p. 3)	x	x	x	x	x				x							
The Jobs Letter, 2001	"Social entrepreneurs are innovators who pioneer new solutions to social problems – and in doing so change the patterns of society. Like business entrepreneurs, they combine creativity with pragmatic skills to bring new ideas and services into reality. Like community activists, they have the determination to pursue their vision for social change relentlessly until it becomes a reality society-wide" (p. 1)	x			x	x											
The New Heroes, 2005	"What is social entrepreneurship? A social entrepreneur identifies and solves social problems on a large scale. Just as business entrepreneurs create and transform whole industries, social entrepreneurs act as the change agents for society, seizing opportunities others miss in order to improve systems, invent and disseminate new approaches and advance sustainable solutions that create social value" (n/a)	x			x			x									

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Thompson, Alvy, & Lees, 2000	"[...] people who realise where there is an opportunity to satisfy some unmet need that the state welfare system will not or cannot meet, and who gather together the necessary resources (generally people, often volunteers, money and premises) and use these to "make a difference"" (p. 328)	x			x		x	x								x
Vasakarla, 2008	"Social entrepreneurs are those 'rare breed of leaders' who search for change, respond to it and exploit it as an opportunity to develop new business models for the social empowerment" (p. 32)	x		x	x		x								x	
Waddock & Post, 1991	"Social entrepreneurs build scarce resources as does a commercial entrepreneur, but they differ from these in that (1) the fact that social entrepreneurs are private citizens, not public servants, (2) their focus on raising public awareness of an issue of general public concern, and (3) their hope that increased public attention will result in new solutions eventually emerging, frequently from Uisc same organizations already charged with dealing with the issue. It is this latter aspect that gives rise to the term "catalytic"" (p. 394)	x			x	x		x		x						
Wang, 2007	"[...] social enterprise [is] defined as an organization that generates profit, but unlike a neoclassical firm, does not maximize profit, and unlike a nonprofit, is free to redistribute profits to investors" (p. 86)		x	x	x											
Wei-Skillern et al., 2007	"We define social entrepreneurship as an innovative, social value-creating activity that can occur within or across the nonprofit, business, or government sector" (p. 4)				x	x							x			

Source	Definition	Criteria														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Zahra et al., 2009	"[...] encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner" (p. 5)				x	x	x									

Appendix 2. – Final questionnaire in German (printed version)

Liebe Studentin, lieber Student,

danke, dass Sie an dieser Befragung teilnehmen. Bei dem folgenden Fragebogen geht es um Ihre **persönliche Einstellung zur Gründung einer Social Enterprise**.

Einleitend lesen Sie bitte einen Text, die Begriffe „Social Entrepreneur“ und „Business Entrepreneur“ erläutert. Anschließend füllen Sie bitte den Fragebogen aus.

Bitte denken Sie beim Ausfüllen daran: **Es gibt keine richtigen oder falschen Antworten!** Nur wenn Sie ehrlich antworten, können wir von Ihnen lernen.

Das Vervollständigen des Fragebogens wird ca. **10 Min.** dauern. Bitten melden Sie sich, wenn Sie Fragen haben. Die Umfrage ist anonym.

Vielen Dank für Ihre Unterstützung!

Kati Ernst

Unser Verständnis von den Begriffen „Social Entrepreneur“ und „Business Entrepreneur“

Ein **Social Entrepreneur** führt ein Unternehmen (eine Social Enterprise), welches neben finanziellen auch soziale Ziele verfolgt – und zwar vordergründig. Dieses bedeutet, dass **das primäre Ziel des Unternehmens das Bekämpfen eines sozialen Problems ist** (z.B. Armut oder Obdachlosigkeit). Dieses Ziel wird im Rahmen der Geschäftstätigkeit verfolgt, indem z.B. Betroffene in das Geschäftsmodell mit einbezogen werden. Dennoch ist es ein Unternehmen und kein ehrenamtlicher Dienst, da Einkommen erzielt, und aktiv auf einem kompetitiven Markt agiert wird. Aufgrund dieser Einstellung werden Entscheidungen immer so getroffen, dass das soziale Ziel optimal verfolgt wird – auch wenn dafür Umsatzeinbußen oder geringeres Gehalt hingenommen werden müssen.

Als Beispiel kann man den spanischen Yoghurthersteller „La Fageda“ nennen. Mehrere Psychologen taten sich mit dem Ziel zusammen, die soziale Integration von behinderten Menschen zu verbessern. Sie hatten herausgefunden, dass eine erfüllende Arbeit das Kernelement sozialer Integration bildet.. Zudem zeigte sich, dass manuelle Arbeit und Arbeit an der frischen Luft besonders förderlich für das Wohlbefinden dieser Gruppe von Betroffenen sind. Also gründeten die Psychologen ein Yoghurtunternehmen – primär mit dem Ziel, behinderten Menschen eine erfüllende Arbeit zu geben, aber auch, um mit einem Premium-Yoghurt unternehmerisch Erfolg zu haben. Die unternehmerische Tätigkeit wird teilweise durch das soziale Ziel

eingeschränkt. U.a. dadurch, dass das Unternehmen nicht über die Region hinaus expandieren kann, da es befürchtet, in entfernten Gebieten die ideale Betreuung der Mitarbeiter nicht gewährleisten zu können. Also bleibt es ein erfolgreicher Mittelständler. Insofern erfüllt das Unternehmen, wie oben beschrieben, primär ein soziales Ziel, und das im Rahmen einer Geschäftstätigkeit auf einem kompetitiven Markt.

Ein **Business Entrepreneur** auf der anderen Seite agiert zwar auch mit innovativen Modellen auf einem Markt – seine Entscheidungen zielen jedoch primär darauf ab, das **Unternehmen zu stärken und wachsen zu lassen**. Indem er dieses tut, **sichert er z.B. Arbeitsplätze, sein Gehalt und Zahlungen an Miteigentümer**, während er ein erfolgreiches Unternehmen in einem kompetitiven Umfeld leitet.

Als Beispiel kann Bill Gates genannt werden, der vor Jahren Microsoft gegründet hat. Er und seine Mitstreiter konnten sich für ein Produkt begeistern, den PC. Sie gründeten in dem Bereich ein Unternehmen, um wirtschaftlich erfolgreich zu sein mit einem Produkt, welches ihnen Spaß macht, und bei dem sie Innovationen vorantreiben konnten. Über die Jahre hinweg konnte das Unternehmen Arbeitsplätze für Tausende von Menschen schaffen, und es hat die Technologiewelt verändert. Zudem konnte Bill Gates so Wohlstand schaffen, den er heute für wohltätige Zwecke einsetzt. Dennoch, als Entrepreneur war sein primäres Ziel der Gewinn und die Beständigkeit des Unternehmens, welches er erfolgreich erreicht hat.

Wenn Sie zu dem Beruf **Social Entrepreneur** befragt werden, halten Sie sich bitte ein Unternehmen vor Augen, das sich mit **einem sozialen Problem beschäftigt, welches Sie persönlich interessiert**.

Wenn Sie zu dem Beruf **Business Entrepreneur** befragt werden, halten Sie sich bitte ein Unternehmen vor Augen, das sich **mit einem Produkt beschäftigt, welches Sie persönlich interessiert**.

Die folgenden Aussagen beschäftigen sich mit **Ihrer persönlichen Einstellung zu den Berufen Social Entrepreneur oder Business Entrepreneur und Ihrem individuellen Umfeld.**

Bitte geben Sie den Grad Ihrer Zustimmung an. Bitte geben Sie diesen für jede Aussage separat an, von „1 = trifft nicht zu“ bis „5 = trifft zu“.

Bie den Fragen geht es um das Gründen einer Social oder Business Enterprise **innerhalb von fünf Jahren nach Abschluss Ihres Studiums!**

	Trifft nicht zu					Trifft zu	
Ein Social Entrepreneur zu werden bringt mehr Vorteile als Nachteile mit sich	1	2	3	4	5		
Ich kenne potentielle Geschäftspartner und/oder Zulieferer, mit denen ich als Social Entrepreneur arbeiten könnte	1	2	3	4	5		
Ich habe das notwendige Hintergrundwissen (Informationen), um als Social Entrepreneur erfolgreich zu sein	1	2	3	4	5		
Wenn ich Social Entrepreneur werden würde, hätte meine Social Enterprise höchstwahrscheinlich Erfolg	1	2	3	4	5		
Jene Menschen, die mir wichtig sind, möchten, dass ich Social Entrepreneur werde	1	2	3	4	5		
Ich weiß viel über das Gründen eines Unternehmens	1	2	3	4	5		
Es wäre einfach für mich, Social Entrepreneur zu werden	1	2	3	4	5		
Die meisten Menschen, die mir wichtig sind, würden es befürworten, wenn ich Social Entrepreneur werde	1	2	3	4	5		
Eine Karriere als Social Entrepreneur erscheint mir reizvoll	1	2	3	4	5		
Ich bin Experte in der Gründung von Social Enterprises	1	2	3	4	5		
Ich habe persönliche Kontakte zu Personen die sich für das soziale Ziel engagieren, für das ich mich als Social Entrepreneur einsetzen würde, oder die von dem Problem selbst betroffen sind	1	2	3	4	5		

	Trifft nicht zu		Trifft zu		
Ich habe vor, <i>Business Entrepreneur</i> zu werden	1	2	3	4	5
Die Menschen, die mir wichtig sind, würden es erstrebenswert finden, wenn ich Social Entrepreneur werde	1	2	3	4	5
Ich glaube, ich könnte das Gründen einer Social Enterprise bewältigen	1	2	3	4	5
Ist liegt hauptsächlich an mir, ob ich Social Entrepreneur werde oder nicht	1	2	3	4	5
Ich habe vor, Social Entrepreneur zu werden	1	2	3	4	5
Jene Menschen, die mir wichtig sind, denken, dass ich Social Entrepreneur werden sollte	1	2	3	4	5
Wenn ich versuchen würde Social Entrepreneur zu werden, würde es mir höchstwahrscheinlich gelingen	1	2	3	4	5
Ich besitze die notwendigen Fähigkeiten (Skills) um als Social Entrepreneur erfolgreich zu sein	1	2	3	4	5
Ich habe ein etabliertes Netzwerk an Kontakten, die mir helfen, wenn ich Social Entrepreneur werde	1	2	3	4	5
Ich könnte das Gründen einer Social Enterprise steuern und hätte die Kontrolle	1	2	3	4	5
Mein persönliches Umfeld würde mich finanziell unterstützen, wenn Social Entrepreneur werden würde	1	2	3	4	5
Ich habe Expertise zu dem Gründen von Social Enterprises	1	2	3	4	5
Ich bin zuversichtlich, dass ich Erfolg hätte, wenn ich Social Entrepreneur werden würde	1	2	3	4	5
Mein persönliches Umfeld würde mich durch Ratschläge oder die Vermittlung von Kontakten aktiv unterstützen, wenn ich Social Entrepreneur werden würde	1	2	3	4	5
Ich weiß viel über das soziale Problem, für das sich meine Social Enterprise engagieren würde	1	2	3	4	5

Die folgenden Aussagen beschäftigen sich mit Ihren **Persönlichkeitszügen und generellen Einstellungen**.

Bitte geben Sie weiterhin den Grad Ihrer Zustimmung an. Bitte geben Sie diese für jede Aussage separat an, von „1 = trifft nicht zu“ bis „5 = trifft zu“.

	Trifft nicht zu		Trifft zu		
Ich kann gut vorhersagen, wie sich jemand fühlen wird	1	2	3	4	5
Wenn ich Sachen sehe, die ich nicht mag, ändere ich sie	1	2	3	4	5
Ich möchte mich für Menschen engagieren, die keine gesellschaftliche Lobby haben	1	2	3	4	5
Man sagt mir nach, dass ich die Gedanken und Gefühle von Menschen gut verstehen kann	1	2	3	4	5
Grundsätzlich bin ich dazu bereit, Risiken einzugehen	1	2	3	4	5
Es ist mein Wunsch, gesellschaftliche Veränderungen zu bewirken	1	2	3	4	5
Ich bin eine erfinderische Person, die Ideen hat	1	2	3	4	5
Ich halte es für wichtig, mehr zu arbeiten als Andere	1	2	3	4	5
Es ist ein Wunsch von mir, mich mit einer Gruppe von Betroffenen solidarisch zu zeigen	1	2	3	4	5
Ich kann erkennen, wenn jemand seine echten Emotionen verbirgt	1	2	3	4	5
Es macht mir Spaß, neue berufliche Tätigkeitsfelder für mich selbst zu schaffen	1	2	3	4	5

Äußern Sie bitte Ihre Meinung zu den folgenden Aussagen, von denen jede eine **eigene Bewertungsskala** hat. Bitte kreuzen Sie weiterhin die entsprechende Zahl an.

Innerhalb von fünf Jahren nach Abschluss meines Studiums Social Entrepreneur zu werden ist für mich...	schädlich			vorteilhaft	
	1	2	3	4	5
	unerfreulich			erfreulich	
	1	2	3	4	5
	schlecht			gut	
	1	2	3	4	5

Wenn Sie sich entscheiden, innerhalb von fünf Jahren nach Abschluss Ihres Studiums Social Entrepreneur zu werden, würde Ihr persönliches Umfeld dieses gut finden?					
	Starke Missbilligung			Volle Befürwortung	
Ihr engster Familienkreis	1	2	3	4	5
Ihre Freunde	1	2	3	4	5
Ihre Kommilitonen/Studienkollegen	1	2	3	4	5

Bitte geben Sie an, wie gut Sie folgende Institutionen kennen:					
	Überhaupt nicht			Sehr gut	
Kapitalgeber, die speziell Social Entrepreneurs oder/und Entrepreneurs finanzieren (z.B. Venture Capitalists)	1	2	3	4	5
Business Center oder Incubatoren, die Social Entrepreneurs oder Entrepreneurs miteinander vernetzen und beim Austausch unterstützen (z.B. Entrepreneurship Centren an Universitäten)	1	2	3	4	5
Anbieter von speziellen Trainings für Social Entrepreneurs oder/und Entrepreneurs (z.B. Workshops)	1	2	3	4	5

Geben Sie bitte an, wie viel Unterstützung Sie von den folgenden Gruppen erwarten, wenn Sie Social Entrepreneur werden.					
Wenn ich innerhalb von fünf Jahren nach Abschluss meines Studiums Social Entrepreneur werde, würde ich finanziell unterstützt werden					
	Trifft nicht zu			Trifft zu	
... von meinem engsten Familienkreis	1	2	3	4	5
... von meinen Freunden	1	2	3	4	5
... von meinen Kommilitonen/Studienkollegen	1	2	3	4	5
Wenn ich innerhalb von fünf Jahren nach Abschluss meines Studiums Social Entrepreneur werde, würde ich durch Ratschläge oder die Vermittlung von Kontakten aktiv unterstützt werden					
	Trifft nicht zu			Trifft zu	
... von meinem engsten Familienkreis	1	2	3	4	5
... von meinen Freunden	1	2	3	4	5
... von meinen Kommilitonen/Studienkollegen	1	2	3	4	5

Wie zuversichtlich sind Sie mit Blick auf Ihre Fähigkeiten in Bezug auf Social Entrepreneurship? Bitte geben Sie den Grad Ihrer Zustimmung zu den folgenden Aussagen an.						
		Trifft nicht zu			Trifft zu	
Ich kann gut...	... Chancen erkennen	1	2	3	4	5
	... Sachen erklären	1	2	3	4	5
	... Probleme lösen	1	2	3	4	5
	... Menschen zuhören	1	2	3	4	5
	... Teams führen	1	2	3	4	5
	... Kontakte knüpfen	1	2	3	4	5
	... Vertrauen aufbauen	1	2	3	4	5
	... Pläne umsetzen/realisieren	1	2	3	4	5
	... kreativ arbeiten	1	2	3	4	5
	... auf Tatsachen aufmerksam machen	1	2	3	4	5
... neue Ideen entwickeln	1	2	3	4	5	

Abschließend würden wir Ihnen gerne einige Fragen zu Ihrer Person stellen. **Bitte kreuzen Sie das relevante Feld an, oder tragen die entsprechende Information in das freie Feld ein.**

Selbstverständlich werden Ihre Daten absolut vertraulich behandelt und anonym ausgewertet.

Haben Sie bereits zuvor an dieser Umfrage teilgenommen?		ja	nein
Wie alt sind Sie? (in Jahren)			
Geschlecht		männlich	weiblich
Wann haben Sie vor Ihr Studium zu beenden?		Dieses Jahr (2011)	Nächstes Jahr (2012) Nach 2012
Welches Fach studieren Sie?			
Waren Sie bereits...	In einem Start-Up angestellt?	ja	nein
	Gründer eines Unternehmens?	ja	nein
	In einer Social Enterprise angestellt?	ja	nein
	Gründer einer Social Enterprise?	ja	nein
Waren Sie in der Vergangenheit ehrenamtlich aktiv (z.B. in der Kirche, Freiwilligendienst)?		ja	nein
Haben Sie ein soziales Jahr oder Zivildienst gemacht?		ja	nein
Gibt es die folgenden Personen in Ihrem nächsten Umfeld (Familie, Freunde, Verwandte...)?	Social Entrepreneurs	ja	nein
	Business Entrepreneurs	ja	nein
	Ehrenamtlich stark engagierte Menschen	ja	nein
Haben Sie bereits einen Kurs oder ein Modul besucht, welches in eine der folgenden Kategorien fallen könnte?	Entrepreneurship Kurs	ja	nein
	Social Entrepreneurship Kurs	ja	nein
	Non-profit/Ethik Kurs	ja	nein

VIELEN DANK FÜR IHRE TEILNAHME!

Appendix 3. – Final questionnaire in English

Dear student,

Thank you for taking part in this survey. The following questionnaire looks at your personal views on becoming a social entrepreneur.

In a first step, please read the following text, which explains the terms „social entrepreneur“ and „business entrepreneur“. Afterwards, please complete the questionnaire.

Please remember: **there are no wrong or right answers!** Please fill out the survey honestly, as this is the only way we can learn from you.

Completing the questionnaire will take about 10 minutes. If you have any questions, please ask me. Data will be treated anonymously.

Thank you for your support!

Kati Ernst

Our understanding of the terms „social entrepreneur“ und „business entrepreneur“

A **social entrepreneur** runs a company (the social enterprise), which has a social mission besides its financial goals – and this social mission is the more important of the two. This means that the **primary goal is the combat of a certain social problems**, e.g., poverty or homelessness. This goal is pursued within the context of the company, e.g., by integrating affected groups into the business model. Nonetheless, it is a business and not a voluntary service, as revenues are achieved, and the business act competitively on a market. Due to this perspective, decisions are always made in favor of the social cause in focus – even if it means lower revenues or wages.

As an example, the spanish Yoghurt company „La Fageda“ is briefly reviewed. Several psychologists joined with the aim of improving the social integration of disabled people. They had found out that a satisfying job forms the core element of social integration. Also, it was shown that manual labour and working in the fresh air was especially helpful for the well-being of this group. So the psychologists founded a yoghurt company – with the primary goal of offering disabled people a satisfying job, yet also, to have success on the market with a premium brand. The business is partially limited by the social goal, e.g., due to the fact that the company can not expand as they fear to not be able to find optimal support for their staff in other regions. So the company remains a successful small business. In this sense, the company, as

described above, fulfills a social goal within market activity of a competitive market.

A **business entrepreneur** on the other hand will also **compete on a market** with innovative ideas – yet, his decisions will be focused on **maintaining and growing the business**. By doing so, he secures jobs, his income, and payment to shareholders, while running a successful enterprise in a competitive field.

As an example, Bill Gates can be names, who founded Microsoft years ago. He and his co-founders were fascinated by a product, the PC. They founded a business in that field, to be successful economically with a product they enjoyed and with which they could pursue innovations. Over the years the company offered employment for thousands of people, and changed the world of technology. Also, Bill Gates could acquire a level of wealth, which he uses for social causes today. Nonetheless, as a business entrepreneur, his primary goal was profit and the sustainability of his company, which he successfully achieved.

When asked about becoming a **social entrepreneur**, please consider becoming a social entrepreneur for a **social cause that interests you personally**.

When asked about becoming a **business entrepreneur**, please consider becoming an entrepreneur for a **product that interests you personally**.

The following statements deal with your **personal opinions** on becoming a social entrepreneur or business entrepreneur and your individual environment.

Please indicate your level of agreement regarding the separate statements from 1= totally disagree to 5 = totally agree.

The questions are about founding a social or business enterprise within **five years after completing your studies!**

	totally disagree					totally agree	
Becoming a social entrepreneur implies more advantages than disadvantages to me	1	2	3	4	5		
I know potential business partners and/or suppliers who I could work with if I become a social entrepreneur	1	2	3	4	5		
I have the necessary knowledge (information) to succeed as a social entrepreneur	1	2	3	4	5		
If I became a social entrepreneur, it would be very likely that my company would be successful	1	2	3	4	5		
Those people who are important to me would want me to become a social entrepreneur	1	2	3	4	5		
I know a lot about the founding of an enterprise	1	2	3	4	5		
It would be easy for me to become a social entrepreneur	1	2	3	4	5		
Most people important to me would approve of my becoming a social entrepreneur	1	2	3	4	5		
A career as a social entrepreneur is attractive to me	1	2	3	4	5		
I am an expert at launching a social enterprise	1	2	3	4	5		
I have personal contacts with people working in or affected by the social topic my enterprise would deal with	1	2	3	4	5		
I intend to become a business entrepreneur	1	2	3	4	5		
The people important to me would think it was desirable if I became a social entrepreneur	1	2	3	4	5		
I believe I could handle the creation of a social enterprise	1	2	3	4	5		

	totally disagree			totally agree	
It is mostly up to me whether or not I become a social entrepreneur	1	2	3	4	5
I intend to become a social entrepreneur	1	2	3	4	5
Those people who are important to me think I should become a social entrepreneur	1	2	3	4	5
If I tried to become a social entrepreneur, I would have a high probability of succeeding	1	2	3	4	5
I have the skills and capabilities required to succeed as an entrepreneur	1	2	3	4	5
I have a vast established network of contacts to help me if I become a social entrepreneur	1	2	3	4	5
I can control the creation process of a social enterprise	1	2	3	4	5
My close personal environment would support me financially, if I become a social entrepreneur	1	2	3	4	5
I have expertise in starting up a social enterprise	1	2	3	4	5
I am sure I would be successful if I become a social entrepreneur	1	2	3	4	5
My close personal environment would support me with advice or networking efforts if I became a social entrepreneur	1	2	3	4	5
I know a lot about the social problem my social enterprise would address	1	2	3	4	5

The following statements deal with your **personality and general opinions**.

Please indicate your level of agreement regarding the separate statements from 1= totally disagree to 5 = totally agree.

	totally disagree			totally agree	
I am good at predicting how someone will feel	1	2	3	4	5
If I see something I do not like, I change it	1	2	3	4	5
I want to support people who have no lobby or social support	1	2	3	4	5
Other people tell me I am good at understanding how they are feeling and what they are thinking	1	2	3	4	5
In general, I am willing to take risks	1	2	3	4	5
I want to create social change	1	2	3	4	5
I am an inventive person who has ideas	1	2	3	4	5
I think it's important to work more than others	1	2	3	4	5
I would like to show solidarity for groups in need	1	2	3	4	5
I can tell if someone is masking their true emotion	1	2	3	4	5
I get excited by creating my own work opportunities	1	2	3	4	5

Please state your opinion to the following statements, of which each has an own scale.
Again, please tick according number.

For me, becoming a social entrepreneur within five years after completing my studied is	harmful			beneficial	
	1	2	3	4	5
	unenjoyable			enjoyable	
	1	2	3	4	5
	bad			good	
	1	2	3	4	5

If you decided to become a social entrepreneur, would people in your close environment approve of that decision?					
	Total disapproval			Total approval	
Your close family	1	2	3	4	5
Your friends	1	2	3	4	5
Your fellow students	1	2	3	4	5

Please indicate how well you know the following business associations and support bodies:					
	Not at all			Very well	
Financial institutions specializing in funding social entrepreneurs and/or entrepreneurs (e.g., venture capitalists)	1	2	3	4	5
Business centres or incubators, which assist social entrepreneurs and/or entrepreneurs to meet and exchange ideas (e.g., entrepreneurship centre at a university)	1	2	3	4	5
Specific training social entrepreneurs and/or entrepreneurs (e.g., specific workshops)	1	2	3	4	5

Please indicate the level of support you expect to receive from the following groups if you become a social entrepreneur						
If I became a social entrepreneur, I would be financially supported by...						
	Totally disagree			Totally agree		
... my closest family	1	2	3	4	5	
... my friends	1	2	3	4	5	
... my fellow students	1	2	3	4	5	
If I became a social entrepreneur, I would be actively supported (with advice/counselling or networking efforts) by...						
	Totally disagree			Totally agree		
... my closest family	1	2	3	4	5	
... my friends	1	2	3	4	5	
... my fellow students	1	2	3	4	5	
How confident are you that you have the skills needed about your skills necessary to become when becoming a social entrepreneur? Please indicate your level of agreement with to the following statements.						
	Totally disagree			Totally agree		
I am good at...	... recognizing opportunities	1	2	3	4	5
	... explaining things	1	2	3	4	5
	... problem solving	1	2	3	4	5
	... listening to people	1	2	3	4	5
	... leading teams	1	2	3	4	5
	... networking	1	2	3	4	5
	... establishing trust	1	2	3	4	5
	... putting plans into action	1	2	3	4	5
	... working creatively	1	2	3	4	5
	... fostering awareness	1	2	3	4	5
	... developing new products and services	1	2	3	4	5

To finish, we would like you to ask you some **questions about yourself**. Again, please **tick according answer or fill in the blank**.

Of course you data will be analysed anonymously and dealt with confidentially.

Have you already taken part in this survey		yes	no
How old are you? (in years)			
Sex		male	female
When do you expect to finish your studies?		This year (2011)	Next year (2012) After 2012
What do you study?			
Have you previously...	been employed in a start-up?	yes	no
	founded your own business?	yes	no
	been employed in a social enterprise?	yes	no
	founded a social enterprise?	yes	no
Have you been an active volunteer in the past (e.g., in Church institutions, social clubs, etc.)?		yes	no
Did you do a "social year" (e.g., "Zivildienst")?		yes	no
Are there any of the following in your close social environment (family, neighbors, friends, relatives)	Social Entrepreneurs	yes	no
	Business Entrepreneurs	yes	no
	Active volunteers	yes	no
Have you ever taken any course or module that could be considered the following:	Entrepreneurial education	yes	no
	Social entrepreneurial education	yes	no
	Non-profit/ethical education	yes	no

THANK YOU!

BIBLIOGRAPHY

- Aarstad, J., Haugland, S. A., & Greve, A. (2009). Performance spillover effects in entrepreneurial networks: assessing a dyadic theory of social capital. *Entrepreneurship: Theory & Practice*, 34(5), 1003-1019.
- Achleitner, A.-K., Heister, P., & Stahl, E. (2007). Social Entrepreneurship - Ein Überblick. In A.-K. Achleitner, R. Pöllath & E. Stahl (Eds.), *Finanzierung von Sozialunternehmern - Konzepte zur finanziellen Unterstützung von Social Entrepreneurs* (pp. 1-25). Stuttgart: Schäffer-Poeschel.
- Ajzen, I. (1988). *Attitudes, personality, and behavior*. Milton Keynes: Open University Press.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52(1), 27-58.
- Ajzen, I. (2002a). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665-683.
- Ajzen, I. (2002b). Sample TpB questionnaire. Retrieved October 14, 2010, from <http://www-unix.oit.umass.edu/~aizen/pdf/tpb.questionnaire.pdf>
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Alden, L. (1986). Self-efficacy and causal attributions for social feedback. *Journal of Research in Personality*, 20(4), 460-473.
- Aldrich, H. (1999). *Organizations evolving*. London: Sage Publications.
- Alter, K. (2006). Social enterprise models and their mission and money relationships. In A. Nicholls (Ed.), *Social entrepreneurship - New models of sustainable social change* (pp. 205-246). New York: Oxford University Press.

-
- Alter, K. (2007). Social enterprise typology. Retrieved October 29, 2009, from <http://www.virtueventures.com/files/setypology.pdf>
- Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social entrepreneurship and societal transformation. *Journal of Applied Behavioral Science*, 40(3), 260-282.
- Anderson, A. R., & Jack, S. L. (2002). The articulation of social capital in entrepreneurial networks: a glue or a lubricant? *Entrepreneurship & Regional Development*, 14(3), 193-210.
- Anderson, B. B., & Dees, J. G. (2006). Rhetoric, reality, and research: building a solid foundation for the practice of social entrepreneurship. In A. Nicholls (Ed.), *Social entrepreneurship - New models of sustainable social change* (pp. 144-168). New York: Oxford University Press.
- Anna, A. L., Chandler, G. N., Jansen, E., & Mero, N. P. (2000). Women business owners in traditional and non-traditional industries. *Journal of Business Venturing*, 15(3), 279-303.
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105-123.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: a meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499.
- Ashoka. (2009). *What is a social entrepreneur?* Retrieved November 9, 2009, from http://www.ashoka.org/social_entrepreneur
- Ashoka & Schwab Foundation. (2009). *Kurzbeschreibung Expertenkonferenz und feierliche Ehrung*. Paper presented at the Wissen, was wirkt. Soziale Investoren treffen Deutschlands führende Sozialunternehmer, Berlin.
- Audretsch, D. B., & Stephan, P. E. (1999). Knowledge spillovers in biotechnology: sources and incentives. *Journal of Evolutionary Economics*, 9(1), 97-107.
- Auerswald, P. (2009). Creating social value. *Stanford Social Innovation Review*, (Spring), 50-55.

- Austin, J. (2006). Three avenues for social entrepreneurship research. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social entrepreneurship* (pp. 22-33). New York: Palgrave Macmillan.
- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: same, different, or both? *Entrepreneurship: Theory & Practice*, 30(1), 1-22.
- Autio, E., Keeley, R. H., Klofsten, M., Parker, G. G. C., & Hay, M. (2001). Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise & Innovation Management Studies*, 2(2), 145-160.
- Backhaus, K., Erichson, B., Plinke, W., & Weiber, R. (2003). *Multivariate Analysemethoden - Eine anwendungsorientierte Einführung*. Berlin: Springer.
- Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: W.H. Freeman and Company.
- Bandura, A. (2006). Guide to constructing self-efficacy scales. In F. Pajares & T. C. Urdan (Eds.), *Self-efficacy beliefs and adolescents* (Vol. 5, pp. 307-337). Greenwich: Information Age Publishing.
- Bandura, A. (Ed.). (1995). *Self-efficacy in changing societies*. Cambridge: Cambridge University Press
- Barendsen, L., & Gardner, H. (2004). Is the social entrepreneur a new type of leader? *Leader to Leader*, 2004(34), 43-50.
- Barkhuus, L., & Csank, P. (1999). *Allport's theory of traits - a critical review of the theory and two studies*. Retrieved April 27, 2011, from <http://www.itu.dk/~barkhuus/allport.pdf>
- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: Why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13(4), 275-294.
- Baron, R. A. (2006). Opportunity recognition as pattern recognition: how entrepreneurs "connect the dots" to identify new business opportunities. *Academy of Management Perspectives*, 20(1), 104-119.

- Baron, R. A., & Markman, G. D. (2000). Beyond social capital: How social skills can enhance entrepreneurs' success. *Academy of Management Executive*, 14(1), 106-116.
- Baron, R. A., & Ward, T. B. (2004). Expanding entrepreneurial cognition's toolbox: potential contributions from the field of cognitive science. *Entrepreneurship: Theory & Practice*, 28(6), 553-573.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118.
- Bates, T. (1990). Entrepreneur human capital inputs and small business longevity. *Review of Economics & Statistics*, 72(4), 551-559.
- Bates, T. (1995). Self-employment entry across industry groups. *Journal of Business Venturing*, 10(2), 143-156.
- Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89(4), 587-598.
- Baum, J. R., Locke, E. A., & Smith, K. G. (2001). A multidimensional model of venture growth. *Academy of Management Journal*, 44(2), 292-303.
- Becherer, R. C., & Maurer, J. G. (1999). The proactive personality disposition and entrepreneurial behavior among small company presidents. *Journal of Small Business Management*, 37(1), 28-36.
- Bennett, R., & Dann, S. (2000). The changing experience of Australian female entrepreneurs. *Gender, Work & Organization*, 7(2), 75-83.
- Bhawe, N., Jain, T. K., & Gupta, V. K. (2007). *The entrepreneurship of the good samaritan: a qualitative study to understand how opportunities are perceived in social entrepreneurship*. Paper presented at the BCERC.
- Bierhoff, H.-W. (1996). Prosoziales Verhalten. In W. Stroebe, M. Hewstone & G. M. Stephenson (Eds.), *Sozialpsychologie* (pp. 395-420). Berlin: Springer.

- Bierhoff, H.-W. (2010). *Psychologie prosozialen Verhaltens - Warum wir anderen helfen*. Stuttgart: W. Kohlhammer.
- Bierhoff, H.-W., & Schülken, T. (1999). *Motive ehrenamtlicher Helfer - Vergleich von Ehrenamtlern, Sozialpädagogen, Zivildienstleistenden und beruflichen Helfern* [Report - 97/1999]. Bochum: Ruhr-University Bochum, Department of Psychology
- Bird, B. (1988). Implementing entrepreneurial ideas: the case for intention. *Academy of Management Review*, 13(3), 442-453.
- Birley, S. (1989). Female entrepreneurs: are they really any different? *Journal of Small Business Management*, 27(1), 32-37.
- Blenker, P., & Thrane-Jensen, C. (2007). *The individual - opportunity nexus: inspiration, impact and influence. A social network and a literary analysis*. Paper presented at the 52. ICSB Conference.
- Bloom, P. N., & Dees, J. G. (2008). Cultivate your ecosystem. *Stanford Social Innovation Review*, (Winter), 46-53.
- Boddice, R. (2009). Forgotten antecedents: entrepreneurship, ideology and history. In R. Ziegler (Ed.), *An Introduction to Social Entrepreneurship - Voices, Preconditions, Contexts* (pp. 133-152). Cheltenham: Edward Elgar Publishing Ltd.
- Bode, I., Evers, A., & Schulz, A. (2004). *Work integration social enterprises in Germany* [Working Paper – 02/04]. Liège: EMES.
- Boisson, J.-P., Castagnos, J.-C., & Deschamps, B. (2006). Motivations and drawbacks concerning entrepreneurial action: a study of French PhD students. In A. Fayolle & H. Klandt (Eds.), *International entrepreneurship education - Issues and newness* (pp. 262-276). Cheltenham, UK: Edward Elgar.
- Bönte, W., & Jarosch, M. (2010). *Mirror, mirror on the wall, who is the most entrepreneurial of them all?* [Schumpeter Discussion Papers - 2010-009]. Wuppertal: University of Wuppertal, Schumpeter School of Business and Economics.

- Borman, W. C., Penner, L. A., Allen, T. D., & Motowidlo, S. J. (2001). Personality predictors of citizenship performance. *International Journal of Selection and Assessment*, 9(1-2), 52-69.
- Bornstein, D. (2004). *How to change the world: social entrepreneurs and the power of new ideas*. Oxford, UK: Oxford University Press.
- Bornstein, D., & Davis, S. (2010). *Social entrepreneurship - What everyone needs to know*. Oxford: Oxford University Press.
- Bortz, J. (1999). *Statistik für Sozialwissenschaftler*. Berlin: Springer.
- Boschee, J. (1995). Social entrepreneurship - Some nonprofits are not only thinking about the unthinkable, they're doing it – running a profit. *Across the Board*, 32(3), 20-25.
- Boschee, J., & McClurg, J. (2003). *Towards a better understanding of social entrepreneurship - some important distinctions*. Retrieved October 28, 2009, from <http://www.caledonia.org.uk/papers/Social-Entrepreneurship.pdf>
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship: Theory & Practice*, 18(4), 63-77.
- Bradley, F., & Boles, K. (2003). *Female entrepreneurs from ethnic backgrounds: an exploration of motivations and barriers* [Working Paper]. Manchester: Manchester Metropolitan University Business School.
- Brännback, M., Krueger, N., Carsrud, A. L., & Elfving, J. (2007). "Trying" to be an entrepreneur? A "goal-specific" challenge to the intentions model. Paper presented at the Babson Collegiate Entrepreneurship Research Conference.
- Braukmann, U., Bijedic, T., & Schneider, D. (2008). "Unternehmerische Persönlichkeit" - eine theoretische Rekonstruktion und nominaldefinitorische Konturierung [Schumpeter Discussion Papers - 2008-003]. Wuppertal: University of Wuppertal, Schumpeter School of Business and Economics.
- Brinckerhoff, P. C. (2000). *Social entrepreneurship - The art of mission-based venture development*. New York: John Wiley & Sons.

- Broadhead-Fearn, D., & White, K. M. (2006). The Role of self-efficacy in predicting rule-following behaviors in shelters for homeless youth: a test of the theory of planned behavior. *Journal of Social Psychology, 146*(3), 307-325.
- Brock, D. D. (2008). *Social entrepreneurship - Teaching resources handbook*. Arlington: Ashoka's Global Academy for Social Entrepreneurship.
- Brockhaus, R. H., Sr. (1980). Risk taking propensity of entrepreneurs. *The Academy of Management Journal, 23*(3), 509-520.
- Brockhaus, R. H., Sr., & Horwitz, P. S. (1986). The psychology of the entrepreneur. In D. Sexton & R. W. Smilor (Eds.), *The Art and Science of entrepreneurship* (pp. 25-48). Cambridge: Ballinger.
- Bromberger, A. R. (2011). A new type of hybrid. *Stanford Social Innovation Review, (Spring)*, 48-53.
- Brosius, F. (2008). *SPSS 16 - Das mitp-Standardwerk*. Heidelberg: mitp.
- Brüderl, J., & Preisendorfer, P. (1998). Network support and the success of newly founded businesses. *Small Business Economics, 10*(3), 213-225.
- Brush, C. G. (1992). Research on women business owners: past trends, a new perspective and future directions. *Entrepreneurship: Theory & Practice, 16*(4), 5-30.
- Buenstorf, G. (2007). Creation and pursuit of entrepreneurial opportunities: an evolutionary economics perspective. *Small Business Economics, 28*(4), 323-337.
- Bull, M. (2008). Challenging tensions: critical, theoretical and empirical perspectives on social enterprise. *International Journal of Entrepreneurial Behaviour & Research, 14*(5), 268-275.
- Bull, M., & Crompton, H. (2006). Business practices in social enterprises. *Social Enterprise Journal, 2*(1), 42-60.
- Busenitz, L. W., & Lau, C.-M. (1996). A cross-cultural cognitive model of new venture creation. *Entrepreneurship: Theory & Practice, 20*(4), 25-39.
- Caird, S. (1991). Testing enterprising tendency in occupational groups. *British Journal of Management, 2*(4), 177-186.

- Canadian Centre for Social Entrepreneurship. (2001). *Social entrepreneurship - discussion paper No. 1*. Retrieved October 29, 2009, from http://www.ediblestrategies.com/fsd/2001_social_entrepreneur.pdf
- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. A. C. (1984). Differentiating entrepreneurs from small business owners: a conceptualization. *Academy of Management Review*, 9(2), 354-359.
- Carland, J. W., Hoy, F., & Carland, J. A. C. (1988). "Who is an entrepreneur?" is a questions worth asking. *American Journal of Small Business*, 12(4), 33-40.
- Carsrud, A. L., Gaglio, C. M., Olm, K. W., & Churchill, N. C. (1987). Entrepreneurs - mentors, networks, and successful new venture development: an exploratory study. *American Journal of Small Business*, 12(2), 13-18.
- Carsrud, A. L., & Johnson, R. W. (1989). Entrepreneurship: a social psychological perspective. *Entrepreneurship & Regional Development: An International Journal*, 1(1), 21-31.
- Carter, N. M., Williams, M., & Reynolds, P. D. (1997). Discontinuance among new firms in retail: The influence of initial resources, strategy, and gender. *Journal of Business Venturing*, 12(2), 125-145.
- Casanueva, C. B., & Gallego, Ñ. N. (2010). Social capital and individual innovativeness in university research networks. *Innovation: Management, Policy & Practice*, 12(1), 105-117.
- Casson, M. (2003). *The entrepreneur - An economic theory, second edition* (Vol. 2). Cheltenham: Edward Elgar.
- Certo, S. T., & Miller, T. (2008). Social entrepreneurship: Key issues and concepts. *Business Horizons*, 51(4), 267-271.
- Chaganti, R., & Parasuraman, S. (1996). A study of impacts of gender on business performance and management patterns in small business. *Entrepreneurship: Theory & Practice*, 21(2), 73-75.

- Chandler, G. N., DeTienne, D., & Lyon, D. W. (2003). *Outcome implications of opportunity creation/discovery process*. Paper presented at the Frontiers of Entrepreneurship Research.
- Chandler, G. N., & Jansen, E. (1992). The founder's self-assessed competence and venture performance. *Journal of Business Venturing*, 7(3), 223-236.
- Chell, E. (2007). Social enterprise and entrepreneurship. *International Small Business Journal*, 25(1), 5-26.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295-316.
- Cho, A. H. (2006). Politics, values and social entrepreneurship: a critical approach. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social Entrepreneurship* (pp. 34-56). New York: Palgrave Macmillan.
- Churchill Jr, G. A. (1979). A Paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Clary, E. G., & Snyder, M. (1999). the motivations to volunteer : theoretical and practical considerations. *Current Directions in Psychological Science*, 8(5), 156-159.
- Clary, E. G., Snyder, M., & Stukas, A. A. (1996). Volunteers' motivations: findings from a national survey. *Nonprofit and Voluntary Sector Quarterly*, 25(4), 485-505.
- Cohen, S. S., & Fields, G. (1999). Social capital and capital gains in Silicon Valley. *California Management Review*, 41(2), 108-130.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology*, 94(Supplement), 95-120.
- Collins, C. J., Hanges, P. J., & Locke, E. A. (2004). The relationship of achievement motivation to entrepreneurial behavior: a meta-analysis. *Human Performance*, 17(1), 95-117.
- Comanys, Y. E., & McMullen, J. S. (2007). Strategic entrepreneurs at work: the nature, discovery, and exploitation of entrepreneurial opportunities. *Small Business Economics*, 28(4), 301-322.

- Comunian, A. L., & Gielen, U. P. (1995). Moral reasoning and prosocial action in Italian culture. *Journal of Social Psychology, 135*(6), 699-706.
- Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: a review and avenues for further research. *Journal of Applied Social Psychology, 28*(15), 1429-1464.
- Conner, M., & McMillan, B. (1999). Interaction effects in the theory of planned behaviour: studying cannabis use. *British Journal of Social Psychology, 38*(2), 195-222.
- Cooper, A. C. (1985). The role of incubator organizations in the founding of growth-oriented firms. *Journal of Business Venturing, 1*(1), 75-86.
- Cooper, S. Y., & Park, J. S. (2008). The impact of 'incubator' organizations on opportunity recognition and technology innovation in new, entrepreneurial high-technology ventures. *International Small Business Journal, 26*(1), 27-56.
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. environmental managers: applying Ajzen's theory of planned behavior. *Academy of Management Journal, 43*(4), 627-641.
- Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship: Theory & Practice, 34*(4), 635-659.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis. *Practical Assessment Research & Evaluation, 10*(7), 1-9.
- Crites, S. L., Fabrigar, L. R., & Petty, R. E. (1994). Measuring the affective and cognitive properties of attitudes: conceptual and methodological issues. *Personality and Social Psychology Bulletin, 20*(6), 619-634.
- Cromie, S. (2000). Assessing entrepreneurial inclinations: some approaches and empirical evidence. *European Journal of Work & Organizational Psychology, 9*(1), 7-30.
- Crutchfield, L. R., & McLeod Grant, H. (2008). *Forces of good - The six practices of high-impact nonprofits*. San Francisco: John Wiley & Sons.

- Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: why we don't need a new theory and how we move forward from here. *Academy of Management Perspectives, 24*(3), 37-57.
- Dart, R. (2004). The legitimacy of social enterprise. *Nonprofit Management & Leadership, 14*(4), 411-424.
- Davidsson, P. (1995). *Determinants of entrepreneurial intentions*. Paper presented at the RENT IX Workshop.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing, 18*(3), 301-331.
- Davies, I., & Ryals, L. (2010). The role of social capital in the success of fair trade. *Journal of Business Ethics, 96*(2), 317-338.
- Davis, K. (1973). The case for and against business assumption of social responsibilities. *The Academy of Management Journal, 16*(2), 312-322.
- Davis, M. H., Luce, C., & Kraus, S. J. (1994). The heritability of characteristics associated with dispositional empathy. *Journal of Personality, 62*(3), 369-391.
- Davis, M. H., Mitchell, K. V., Hall, J. A., Lothert, J., Snapp, T., & Meyer, M. (1999). Empathy, expectations, and situational preferences: personality influences on the decision to participate in volunteer helping behaviors. *Journal of Personality, 67*(3), 469-503.
- De Carolis, D. M., & Saporito, P. (2006). Social capital, cognition, and entrepreneurial opportunities: a theoretical framework. *Entrepreneurship Theory and Practice, 30*(1), 41-56.
- De Koning, A. (2003). Opportunity development: a socio-cognitive perspective. In J. Katz & G. T. Lumpkin (Eds.), *Advances in entrepreneurship, firm emergence and growth* (Vol. 6, pp. 265-314). Bingley: Emerald Group Publishing Limited.
- Dees, J. G. (1996). *The social enterprise spectrum: philanthropy in commerce*: Harvard Business School.
- Dees, J. G. (1998a). Enterprising nonprofits. *Harvard Business Review, 76*(1), 54-67.

- Dees, J. G. (1998b). *The meaning of "social entrepreneurship"*. Retrieved March 31, 2009, from <http://www.fntc.info/files/documents/The%20meaning%20of%20Social%20Entrepreneurship.pdf>
- Dees, J. G. (2003). *Social entrepreneurship is about innovation and impact, not income*. Retrieved October 27, 2009, from <http://www.caseatduke.org/articles/1004/corner.htm>
- Dees, J. G., Emerson, J., & Economy, P. (2001). *Enterprising nonprofits - A toolkit for social entrepreneurs*. New York: Wiley.
- Dees, J. G., Emerson, J., & Economy, P. (2002). *Strategic toolkit for social entrepreneurs - Enhancing the performance of your enterprising nonprofit*. New York: Wiley.
- Defourney, J., & Nyssens, M. (2008). *Social enterprise in europe: recent trend and developments* [Working Paper – 08/01]. Liège: EMES.
- DeMartino, R., & Barbato, R. (2003). Differences between women and men MBA entrepreneurs: exploring family flexibility and wealth creation as career motivators. *Journal of Business Venturing*, 18(6), 815-832.
- DeNoble, A. F., Jung, D., & Ehrlich, S. B. (1999). *Entrepreneurial self-efficacy: the development of a measure and its relationship to entrepreneurial action*. Paper presented at the Babson Frontiers of Entrepreneurship Research.
- Desa, G. (2007). *Social entrepreneurship: snapshots of a research field in emergence*. Retrieved March 17, 2009, from [http://www.cbs.dk/content/download/64150/877865/file/Social%20Entrepreneurship%20-%20Snapshots%20of%20a%20Research%20Field%20in%20Emergence%20\(G.%20Desa%20revised\).doc](http://www.cbs.dk/content/download/64150/877865/file/Social%20Entrepreneurship%20-%20Snapshots%20of%20a%20Research%20Field%20in%20Emergence%20(G.%20Desa%20revised).doc)
- Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2009). Effectual versus predictive logics in entrepreneurial decision-making: differences between experts and novices. *Journal of Business Venturing*, 24(4), 287-309.

- Dimov, D. (2007a). Beyond the single-person, single-insight attribution in understanding entrepreneurial opportunities. *Entrepreneurship: Theory & Practice*, 31(5), 713-731.
- Dimov, D. (2007b). From opportunity insight to opportunity intention: the importance of person-situation learning match. *Entrepreneurship Theory and Practice*, 31(4), 561-583.
- Dorado, S. (2006). Social entrepreneurial ventures: different values so different process of creation, no? *Journal of Developmental Entrepreneurship*, 11(4), 319-343.
- Drayton, W. (2002). The citizen sector: becoming as entrepreneurial and competitive as business. *California Management Review*, 44(3), 120-132.
- Drayton, W. (2006). Everyone a changemaker. *Innovations*, 1(1), 80-96.
- Dreesbach, S. (2010). *Unterschiede in der Persönlichkeit und in den Zielen von Social und Business Entrepreneurs* [Unpublished master's thesis]. Munich: Ludwig Maximilian University.
- Drucker, P. F. (1985). *Innovation and entrepreneurship - Practice and principles*. Oxford: Elsevier Butterworth-Heinemann.
- Durieux, M. B., & Stebbins, R. A. (2010). *Social entrepreneurship for dummies*. Hoboken: Wiley Publishing.
- Dutton, J. E., & Jackson, S. E. (1987). Categorizing strategic issues: links to organizational action. *Academy of Management Review*, 12(1), 76-90.
- Eakin, E. (2003, December 20, 2003). How to save the world? Treat it like a business. *New York Times*. Retrieved October 29, 2009, from http://www.collegesummit.org/images/uploads/PP-How_to_Save_The_World-Treat_it_Like_a_Business.pdf
- Eckhardt, J. T., & Shane, S. A. (2003). Opportunities and entrepreneurship. *Journal of Management*, 29(3), 333-349.
- Edwards, M. (2010). *Small change - Why business won't save the world*. San Francisco: Berrett-Koehler Publishers.

- Eisenberg, N., Fabes, R. A., Guthrie, I. K., & Reiser, M. (2000). Dispositional emotionality and regulation: their role in predicting quality of social functioning. *Journal of Personality and Social Psychology*, 78(1), 136-157.
- Eisenberg, N., Guthrie, I. K., Cumberland, A., Murphy, B. C., Shepard, S. A., Zhao, Q., et al. (2002). Prosocial development in early adulthood: A longitudinal study. *Journal of Personality and Social Psychology*, 82(6), 993-1006.
- Elder, G. H., & Shanahan, M. J. (2006). The life course and human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: theoretical models of human development* (Vol. 6, pp. 665-715). New York: Wiley and Stone.
- Elkington, J., & Hartigan, P. (2008). *The power of unreasonable people - How social entrepreneurs create markets that change the world*. Boston: Harvard Business School Press.
- Fallgatter, M. J. (2002). *Theorie des Entrepreneurship - Perspektiven zur Erforschung der Entstehung und Entwicklung junger Unternehmen*. Wiesbaden: Deutscher Universitäts Verlag.
- Faltin, G. (2008). Social Entrepreneurship, Definitionen, Inhalte, Perspektiven. In G. Braun & M. French (Eds.), *Social Entrepreneurship - Unternehmerische Ideen für eine bessere Gesellschaft* (pp. 25-46). Rostock: HIE-RO Institut, Universität Rostock.
- Faltin, G. (2009). *Teekampagne - "Citizen entrepreneurship" for a meaningful life*. Retrieved June 8, 2009, from http://labor.entrepreneurship.de/downloads/Citizen_E-Ship.pdf
- Farmer, J., & Kilpatrick, S. (2009). Are rural health professionals also social entrepreneurs? *Social Science & Medicine*, 69(11), 1651-1658.
- Fayolle, A., & Degeorge, J. M. (2006). Attitudes, intentions and behaviour: new approaches to evaluating entrepreneurship education. In A. Fayolle & H. Klandt (Eds.), *International entrepreneurship education - Issues and newness* (pp. 74-89). Cheltenham, UK: Edward Elgar.

- Fayolle, A., Gaillly, B., & Lassas-Clerc, N. (2005). *Capturing variations in attitudes and intentions: a longitudinal study to assess the pedagogical effectiveness of entrepreneurship teaching programmes*. Paper presented at the ICSB World Conference.
- Fischer, E. M., Reuber, A. R., & Dyke, L. S. (1993). A theoretical overview and extension of research on sex, gender, and entrepreneurship. *Journal of Business Venturing*, 8(2), 151-168.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behaviour - An introduction to theory and research*. Reading: Addison-Wesley Publishing Company.
- Forbes, D. P. (1999). Cognitive approaches to new venture creation. *International Journal of Management Reviews*, 1(4), 415-439.
- Foster, W., & Bradach, J. (2005). Should nonprofits seek profits? *Harvard Business Review*, 83(2), 92-100.
- Fowler, A. (2000). NGDOs as a moment in history: beyond aid to social entrepreneurship or civic innovation? *Third World Quarterly*, 21(4), 637-654.
- Frances, N. (2008). *The end of charity: time for social enterprise*. Crows Nest: Allen & Unwin.
- Frank, H., Korunka, C., & Lueger, M. (2002). *Entrepreneurial Spirit - Unternehmerische Orientierung und Gründungsneigung von Studierenden*. Wien: WUV Universitätsverlag.
- Frank, H., Lueger, M., & Korunka, C. (2007). The significance of personality in business start-up intentions, start-up realization and business success. *Entrepreneurship & Regional Development*, 19(3), 227-251.
- Frank, H., & Mitterer, G. (2009). Opportunity Recognition – State of the Art und Forschungsperspektiven. *Zeitschrift für Betriebswirtschaft*, 79(3), 367 - 406.
- Franke, N., & Lüthje, C. (2004). *Entrepreneurial intentions of business students: a benchmarking study*. Retrieved November 15, 2010, from <http://www.wu->

wien.ac.at/wuw/institute/entrep/downloads/publikationen/entrepreneurial_intentions_benchmark.pdf

- Friedman, M. (1962). *Capitalism and freedom*. Chicago: University of Chicago Press.
- Fruchterman, J. (2011). For Love or Lucre. *Stanford Social Innovation Review*, (Spring), 42-47.
- Fueglistaller, U., Klandt, H., & Halter, F. (2006). *International Survey on Collegiate Entrepreneurship 2006*. St. Gallen (Switzerland) and Oestrich-Winkel (Germany): University of St. Gallen and European Business School.
- Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10(4), 696-706.
- Gartner, W. B. (1989). "Who is an entrepreneur?" is the wrong question. *Entrepreneurship: Theory & Practice*, 13(4), 47-68.
- Gartner, W. B., Bird, B. J., & Starr, J. A. (1992). Acting as if: differentiating entrepreneurial from organizational behavior. *Entrepreneurship: Theory & Practice*, 16(3), 13-31.
- Gartner, W. B., Shaver, K. G., Gatewood, E., & Katz, J. A. (1994). Finding the entrepreneur in entrepreneurship. *Entrepreneurship: Theory & Practice*, 18(3), 5-9.
- Gasse, Y., & Trembley, M. (2006). Entrepreneurship education among students at a Canadian university: an extensive empirical study of students' entrepreneurial preferences and intentions. In A. Fayolle & H. Klandt (Eds.), *International Entrepreneurship Education - Issues and Newness* (pp. 241-262). Cheltenham, UK: Edward Elgar.
- Gatewood, E. J., Shaver, K. G., & Gartner, W. B. (1995). A longitudinal study of cognitive factors influencing start-up behaviors and success at venture creation. *Journal of Business Venturing*, 10(5), 371-391.
- Gatewood, E. J., Shaver, K. G., Powers, J. B., & Gartner, W. B. (2002). Entrepreneurial expectancy, task effort, and performance*. *Entrepreneurship Theory and Practice*, 27(2), 187-206.

- Glaeser, E. L., & Shleifer, A. (2001). Not-for-profit entrepreneurs. *Journal of Public Economics*, 81(1), 99-115.
- Gliedt, T., & Parker, P. (2007). Green community entrepreneurship: creative destruction in the social economy. *International Journal of Social Economics*, 34(8), 538-553.
- Gnyawali, D. R., & Fogel, D. S. (1994). Environments for entrepreneurship development: key dimensions and research implications. *Entrepreneurship: Theory & Practice*, 18(4), 43-62.
- Goethner, M., Obschonka, M., Silbereisen, R. K., & Cantner, U. (2009). *Approaching the agora - Determinants of scientists' intentions to pursue academic entrepreneurship* [Jena Economic Research Papers - 2009 – 079]. Jena: Friedrich Schiller University and the Max Planck Institute of Economics
- Granovetter, M. (1985). Economic action and social structure: the problem of embeddedness. *The American Journal of Sociology*, 91(3), 481-510.
- Granovetter, M. (1992). Economic institutions as social constructions: a framework for analysis. *Acta Sociologica (Taylor & Francis Ltd)*, 35(1), 3-11.
- Granovetter, M. (2005). The impact of social structure on economic outcomes. *Journal of Economic Perspectives*, 19(1), 33-50.
- Greenslade, J. H., & White, K. M. (2005). The prediction of above-average participation in volunteerism: a test of the theory of planned behaviour and the volunteers functions inventory in older Australian adults. *Journal of Social Psychology*, 145(2), 155-172.
- Greve, A., & Salaff, J. W. (2003). Social networks and entrepreneurship. *Entrepreneurship: Theory & Practice*, 28(1), 1-22.
- Grieve, R. H. (2008). *Professor Yunus on "social business" and the conquest of poverty: a dissenting view* [Working Paper - 08-13]. Glasgow: University of Strathclyde.

- Groothaert, C., & van Bastelaer, T. (2002). *Understanding and measuring social capital - A synthesis of findings and recommendations from the social capital initiative*. Paper presented at the Forum Series on the Role of Institutions in Promoting Growth.
- Grusec, J. E. (1991). The socialization of empathy. In M. S. Clark (Ed.), *Review of Personality and Social Psychology: Volume 12. Prosocial Behavior*. (pp. 9–33). Newbury Park: Sage.
- Guclu, A., Dees, J. G., & Anderson, B. B. (2002). *The process of social entrepreneurship: creating opportunities worthy of serious pursuit*. Retrieved June 8, 2009, from <http://www.caseatduke.org/documents/seprocess.pdf>
- Guerrero, M., Rialp, J., & Urbano, D. (2008). The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. *International Entrepreneurship Management Journal*, 4(1), 35-50.
- Hackl, V. (2009). *Social Franchising - Social Entrepreneurship Aktivitäten multiplizieren* [Unpublished doctoral thesis]. St. Gallen: Universität St. Gallen.
- Haerder, M. (2009, 7th of June 2009). *Geld ranschaffen, Gutes tun*. *Spiegel Online*. Retrieved June 7, 2009, from <http://www.spiegel.de/wirtschaft/0,1518,628642,00.html>
- Harding, R. (2004). Social enterprise: the new economic engine? *Business Strategy Review*, 15(4), 39-43.
- Harding, R. (2006). *Social Entrepreneurship Monitor*. London: Global Entrepreneurship Monitor (GEM).
- Hartigan, P. (2006). It's about people, not profits. *Business Strategy Review*, 17(4), 42-45.
- Haugh, H. (2006). Social enterprise: beyond economic outcomes and individual returns. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social Entrepreneurship* (pp. 180-205). New York: Palgrave Macmillan.
- Hayek, F. A. (1945). The use of knowledge in society. *American Economic Review*, 35(4), 519-530.

- Heckl, E., & Pecher, I. (2007). *Study on practices and policies in the social enterprise sector in Europe*. Vienna: Austrian Institute for SME Research and TSE Entre, Turku School of Economics, Finland.
- Hemingway, C. A. (2005). Personal values as a catalyst for corporate social entrepreneurship. *Journal of Business Ethics*, 60(3), 233-249.
- Herrmann, T. (1991). *Lehrbuch zur empirischen Persönlichkeitsforschung*. Göttingen: Hogrefe.
- Herron, L., & Sapienza, H. J. (1992). The entrepreneur and the initiation of new venture launch activities. *Entrepreneurship: Theory & Practice*, 17(1), 49-55.
- Hibbert, S. A., Hogg, G., & Quinn, T. (2005). Social entrepreneurship: understanding consumer motives for buying The Big Issue. *Journal of Consumer Behaviour*, 4(3), 159-172.
- Hill, C. E. (2009). *Helping skills: facilitating exploration, insight, and action*. Washington: American Psychological Association.
- Hills, G. E., & Schrader, R. C. (1998). *Successful entrepreneurs' insights into opportunity recognition*. Paper presented at the Frontiers of Entrepreneurship Research.
- Hockerts, K. (2006). Entrepreneurial opportunity in social purpose business ventures. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social entrepreneurship* (pp. 142-154). New York Palgrave Macmillan.
- Hrubes, D., Ajzen, I., & Daigle, J. (2001). Predicting hunting intentions and behavior: an application of the theory of planned behavior. *Leisure Sciences*, 23(3), 165-178.
- Hustinx, L., Handy, F., Cnaan, R. A., Brudney, J. L., Pessi, A. B., & Yamauchi, N. (2010). Social and cultural origins of motivations to volunteer: a comparison of university students in six countries. *International Sociology*, 25(3), 349-382.
- Jacobs, A. (2006). Helping people is difficult: growth and performance in social enterprises working for international relief and development. In A. Nicholls (Ed.), *Social entrepreneurship - New models of sustainable social change* (pp. 247-269). New York: Oxford University Press.

- Janssen, J., & Laatz, W. (2007). *Statistische Datenanalyse mit SPSS für Windows*. Springer: Berlin.
- Johannisson, B. (1991). University training for entrepreneurship: Swedish approaches. *Entrepreneurship & Regional Development: An International Journal*, 3(1), 67-82.
- Johannisson, B. (1998). Personal networks in emerging knowledge-based firms: spatial and functional patterns. *Entrepreneurship & Regional Development*, 10(4), 297-312.
- Johannisson, B. (2000). Networking and entrepreneurial growth. In D. L. Sexton & H. Landström (Eds.), *The Blackwell Handbook of Entrepreneurship* (pp. 368-386). Oxford: Blackwell Publishers.
- Johannisson, B., & Monsted, M. (1997). Contextualizing entrepreneurial networking. *International Studies of Management & Organization*, 27(3), 109-136.
- Johannisson, B., Ramírez-Pasillas, M., & Karlsson, G. (2002). The institutional embeddedness of local inter-firm networks: a leverage for business creation. *Entrepreneurship & Regional Development*, 14(4), 297-315.
- Johnson, B. R. (1990). Toward a multidimensional model of entrepreneurship: the case of achievement motivation and the entrepreneur. *Entrepreneurship: Theory & Practice*, 14(3), 39-54.
- Johnson, B. (2005). Overcoming "doom and gloom": empowering students in courses on social problems, injustice, and inequality. *Teaching Sociology*, 33(1), 44-58.
- Johnson, S. (2000). *Literature review on social entrepreneurship*. Retrieved October 28, 2009, from <http://apps.business.ualberta.ca/ccse/publications/publications/Lit.%20Review%20OSE%20November%202000.rtf>.
- Jones, D., & Keogh, W. (2006). Social enterprise: a case of terminological ambiguity and complexity. *Social Enterprise Journal*, 2(1), 11-26.
- Karnani, A. (2009). Romanticizing the poor. *Stanford Social Innovation Review*, (Winter), 38-43.

- Katz, J. A. (1992). A psychosocial cognitive model of employment status choice. *Entrepreneurship: Theory & Practice*, 17(1), 29-37.
- Kim, M.-S., & Hunter, J. E. (1993a). Attitude-behavior relations: a meta-analysis of attitudinal relevance and topic. *Journal of Communication*, 43(1), 101-142.
- Kim, M.-S., & Hunter, J. E. (1993b). Relationships among attitudes, behavioral intentions, and behavior. *Communication Research*, 20(3), 331-364.
- Kinsley, M. (2009). *Creative capitalism*. London: Simon & Schuster UK Ltd.
- Kirchhoff, B. A., & Phillips, B. D. (1988). The effect of firm formation and growth on job creation in the United States. *Journal of Business Venturing*, 3(4), 261-272.
- Kirzner, I. M. (1979). *Perception, opportunity, and profit - studies in the theory of entrepreneurship*. Chicago: The University of Chicago Press.
- Kirzner, I. M. (1985). *Discovery and the capitalist process*. Chicago: The University of Chicago Press.
- Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: an Austrian approach. *Journal of Economic Literature*, 35(1), 60-85.
- Knight, F. H. (1939). *Risk, uncertainty and profit*. Boston: Houghton Mifflin Company.
- Kolvereid, L. (1996a). Organizational employment versus self-employment: reasons for career choice intentions. *Entrepreneurship: Theory & Practice*, 20(3), 23-31.
- Kolvereid, L. (1996b). Prediction of employment status choice intentions. *Entrepreneurship: Theory & Practice*, 21(1), 47-57.
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, 21(6), 866-885.
- Kolvereid, L., & Moen, Ø. (1997). Entrepreneurship among business graduates: does a major in entrepreneurship make a difference? *Journal of European Industrial Training*, 21(4), 154-160.
- Kor, Y. Y., Mahoney, J. T., & Michael, S. C. (2007). Resources, capabilities and entrepreneurial perceptions. *Journal of Management Studies*, 44(7), 1187-1212.

- Kourilsky, M. L. (1995). *Entrepreneurship education: opportunity in search of curriculum*. Kansas City: Kauffman Center for Entrepreneurial Leadership.
- Kourilsky, M. L., & Walstad, W. B. (1998). Entrepreneurship and female youth: knowledge, attitudes, gender differences, and educational practices. *Journal of Business Venturing*, 13(1), 77-88.
- Krueger, N. F. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship: Theory & Practice*, 18(1), 5-21.
- Krueger, N. F. (2000). The cognitive infrastructure of opportunity emergence. *Entrepreneurship: Theory & Practice*, 24(3), 9-27.
- Krueger, N. F. (2003). The cognitive psychology of entrepreneurship. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research - An interdisciplinary survey and introduction* (pp. 105-140). Dordrecht: Kluwer Academic Publishers.
- Krueger, N. F. (2009). Entrepreneurial intentions are dead: long live entrepreneurial intentions. In A. L. Carsrud & M. Brännback (Eds.), *Understanding the Entrepreneurial Mind - Opening the Black Box*. Dordrecht: Springer.
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship: Theory & Practice*, 18(3), 91-104.
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship & Regional Development: An International Journal*, 5(4), 315-330.
- Krueger, N. F., & Dickson, P. R. (1994). How believing in ourselves increases risk taking: perceived self-efficacy and opportunity recognition. *Decision Sciences*, 25(3), 385-400.
- Krueger, N. F., & Kickul, J. (2006). *Are social entrepreneurs really different? Discrete choice modeling of triple bottom line venture preferences*. Retrieved March 22, 2010, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1150490&download=yes#

- Krueger, N. F., Kickul, J., Gundrey, L. K., Verman, R., & Wilson, F. (2009). Discrete choices, trade-offs, and advantages: modeling social venture opportunities and intentions. In J. A. Robinson, J. Mair & K. Hockerts (Eds.), *International Perspectives on Social Entrepreneurship* (pp. 117-143). Houndsmills: Palgrave Macmillan.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5/6), 411-432.
- Krueger, N. F., Schulte, W., & Stamp, J. (2008). *Beyond intent: antecedents of resilience & precipitating events for social entrepreneurial intentions and... action*. Paper presented at the USASBE.
- Lam, P.-Y. (2002). As the flocks gather: how religion affects voluntary association participation. *Journal for the Scientific Study of Religion*, 41(3), 405-422.
- Leadbeater, C. (1997). *The rise of the social entrepreneur*. London: Demos.
- Lee, C., & Green, R. T. (1991). Cross-cultural examination of the Fishbein behavioral intentions model. *Journal of International Business Studies*, 22(2), 289-305.
- Lee, S. H., & Wong, P. K. (2004). An exploratory study of technopreneurial intentions: a career anchor perspective. *Journal of Business Venturing*, 19(1), 7-28.
- Lee, S. Y., Florida, R., & Acs, Z. J. (2004). Creativity and entrepreneurship: a regional analysis of new firm formation. *Regional Studies*, 38(8), 879-891.
- Leppert, T. (2008). Social Entrepreneurs in Deutschland—Ansätze und Besonderheiten einer spezifischen Definition. In G. Braun & M. French (Eds.), *Social Entrepreneurship – Unternehmerische Ideen für eine bessere Gesellschaft* (pp. 47-94). Rostock: HIE-RO Institut, Universität Rostock.
- Lévesque, M., & Minniti, M. (2006). The effect of aging on entrepreneurial behavior. *Journal of Business Venturing*, 21(2), 177-194.
- Levine, J. B., & Hamaoui, J. (2004). *The secret sauce: partnership models that work for business and the poor*. Sausalito: Origo Social Enterprise Partners.

- Light, P. C. (2005). *Searching for social entrepreneurs: who they might be, where they might be found, what they do*. Paper presented at the Association for Research on Nonprofit and Voluntary Associations.
- Light, P. C. (2006). Reshaping social entrepreneurship. *Stanford Social Innovation Review, Fall*, 46-51.
- Light, P. C. (2009). *The search for social entrepreneurship*. Washington: Brookings Institution.
- Light, P. C. (2011). *Driving social change - How to solve the world's toughest problems*. Hoboken: Wiley.
- Liñán, F. (2008). Skill and value perceptions: how do they affect entrepreneurial intentions? *International Entrepreneurship and Management Journal*, 4(3), 257-272.
- Liñán, F., & Chen, Y.-W. (2007). *Testing the entrepreneurial intention model on a two-country sample* [Working Paper]. Barcelona: Departament d'Economia de l'Empresa, Universitat Autònoma de Barcelona.
- Liñán, F., & Chen, Y.-W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship: Theory & Practice*, 33(3), 593-617.
- Liñán, F., & Javier Santos, F. (2007). Does social capital affect entrepreneurial intentions? *International Advances in Economic Research*, 13(4), 443-453.
- Liñán, F., Rodríguez-Cohard, J., & Rueda-Cantuche, J. (2010). Factors affecting entrepreneurial intention levels: a role for education. *International Entrepreneurship and Management Journal (Online first)*, n/a, 1-24.
- Liñán, F., Rodríguez-Cohard, J. C., & Guzmán, J. (2008). *Temporal stability of entrepreneurial intentions: a longitudinal study*. Paper presented at the 4th European Summer University Conference on Entrepreneurship, Bodø Graduate School of Business and Nordland Research Institute.

- Locke, E. A. (2000). Motivation, cognition, and action: an analysis of studies of task goals and knowledge. *Applied Psychology: An International Review*, 49(3), 408-429.
- Loewen, P. J., Lyle, G., & Nachshen, J. S. (n.d.). *An eight-item form of the Empathy Quotient (EQ) and an application to charitable giving*. Retrieved December 8, 2010, from http://www.crcee.umontreal.ca/pdf/Eight%20Question%20ES_final.pdf
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: past research and future challenges. *Journal of Management*, 14(2), 139-161.
- Lucas, W. A., & Cooper, S. Y. (2004). *Enhancing Self-efficacy to enable entrepreneurship: the case of CMI's connections*. Retrieved November 15, 2010, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=568383
- Lüthje, C., & Franke, N. (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2), 135-147.
- Lyon, F., & Ramsden, M. (2006). Deveoping fledging social enterprises? A study of the support required and means of delivering it. *Social Enterprise Journal*, 2(1), 27-41.
- Lyons, T. S. (2002). Building social capital for rural enterprise development: three case studies in the United States. *Journal of Developmental Entrepreneurship*, 7(2), 193-216.
- Maase, S. J. F. M., & Dorst, K. H. (2007). *Exploring the development process of grassroots social entrepreneurship*. Retrieved April 28, 2009, from <http://uk.cbs.dk/content/download/65035/905563/file/Exploring%20the%20development%20process%20of%20grassroots%20social%20entrepreneurship.doc>
- MacMillan, I. (2003, May 19). Social entrepreneurs: playing the role of change agents in society. *Knowledge @ Wharton* Retrieved November 7, 2009, from <http://knowledge.wharton.upenn.edu/articlepdf/766.pdf?CFID=11971468&CFTOKEN=64064908&jsessionid=a8302e43e7aa04450766452354174c423d2b>

- Mair, J., & Marti, I. (2006). Social entrepreneurship research: a source of explanation, prediction, and delight. *Journal of World Business*, 41(1), 36-44.
- Mair, J., & Marti, I. (2009). Entrepreneurship in and around institutional voids: a case study from Bangladesh. *Journal of Business Venturing*, 24(5), 419-435.
- Mair, J., Marti, I., & Ganly, K. (2007). Institutional voids as spaces of opportunity, *European Business Forum*, 31, 35-39.
- Mair, J., & Noboa, E. (2006). Social entrepreneurship: how intentions to create a social enterprise get formed. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social Entrepreneurship* (pp. 121-135). New York: Palgrave Macmillan.
- Mair, J., Robinson, J. A., & Hockerts, K. (2006). Introduction. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social Entrepreneurship* (pp. 1-13). New York: Palgrave Macmillan.
- Mair, J., & Schoen, O. (2005). *Social entrepreneurial business models - An exploratory study* [Working Paper - 610]. Barcelona: IESE Business School.
- Manning, K., Birley, S., & Norburn, D. (1989). Developing a new ventures strategy. *Entrepreneurship: Theory & Practice*, 14(1), 68-76.
- Marcus, B., & Bühner, M. (2009). *Grundlagen der Testkonstruktion*. [Course Book], Hagen: Fernuniversität in Hagen.
- Mariotti, S., & Rabuzzi, D. (2009). Entrepreneurship education for youth. In World Economic Forum (Ed.), *Educating the next wave of entrepreneurs - Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century* [Report of the Global Education Initiative]. Geneva, Switzerland.
- Martin, J. (2004). *Organizational behaviour and management*. London: Thomson Learning.
- Martin, R. L., & Osberg, S. (2007). Social entrepreneurship: the case for definition. *Stanford Social Innovation Review*, (Spring) 28-39.
- Massarsky, C. W., & Beinhacker, S. L. (2002). *Enterprising nonprofits: revenue generation in the nonprofit sector*. New Haven: Yale School of Management - The Goldman Sachs Foundation.

- Matthews, C. H., & Moser, S. B. (1996). A longitudinal investigation of the impact of family background and gender on interest in small firm ownership. *Journal of Small Business Management*, 34(2), 29-43.
- Mayberry, C. (2006). *Social entrepreneurs: is it a new breed of entrepreneur?* Paper presented at the oikos Ph.D. summer academy 2006 – Sustainability and Corporate Strategy.
- McBrearty, S. (2007). Social enterprise - A solution for the voluntary sector? *Social Enterprise Journal*, 3(1), 67-77.
- McClelland, D. C. (1965). Achievement motivation can be developed. *Harvard Business Review*, 43(6), 6-16, 20-24, 178.
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: refining the measure. *Entrepreneurship Theory and Practice*, 33(4), 965–988.
- McLeod Grant, H., & Crutchfield, L. R. (2007). Creating high-impact nonprofits. *Stanford Social Innovation Review*, (Fall), 32-41.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1), 132-152.
- Meehan, B. (2004). 15 minutes - Bill Drayton. *Stanford Social Innovation Review*, (Spring), 11-12.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40(4), 525-543.
- Meyskens, M., Robb-Post, C., Stamp, J. A., Carsrud, A. L., & Reynolds, P. D. (2010). Social ventures from a resource-based perspective: an exploratory study assessing global Ashoka fellows. *Entrepreneurship: Theory & Practice*, 34(4), 661-680.
- Minniti, M., Allen, I. E., & Langowitz, N. (2005). *Global Entrepreneurship Monitor 2005 Report on Women and Entrepreneurship*. Babson Park: The Center for Women's Leadership at Babson College.

- Minniti, M., & Bygrave, W. (1999). The microfoundations of entrepreneurship. *Entrepreneurship: Theory & Practice*, 23(4), 41-52.
- Minniti, M., & Nardone, C. (2007). Being in someone else's shoes: the role of gender in nascent entrepreneurship. *Small Business Economics*, 28(2/3), 223-238.
- Mischel, W. (1968). *Personality and assessment*. New York: Wiley.
- Mitchell, J. R., & Shepherd, D. A. (2010). To thine own self be true: Images of self, images of opportunity, and entrepreneurial action. *Journal of Business Venturing*, 25(1), 138-154.
- Molina-Morales, F. X., & Martínez-Fernández, M. T. (2010). Social networks: effects of social capital on firm innovation. *Journal of Small Business Management*, 48(2), 258-279.
- Monllor, J., & Attaran, S. (2008). Opportunity recognition of social entrepreneurs: an application of the creativity model. *International Journal of Entrepreneurship and Small Business*, 6(1), 54-67.
- Moray, N., Stevens, R., & Crucke, S. (2008). *The process of value creation in social entrepreneurial firms: a theoretical framework and research proposal*. Paper presented at the Academy of Management Conference.
- Mort, G. S., Weerawardena, J., & Carnegie, K. (2003). Social entrepreneurship: towards conceptualisation. *International Journal of Nonprofit & Voluntary Sector Marketing*, 8(1), 76-88.
- Moske, P. (2008). Unternehmerisches Engagement für behinderte und chronisch kranke Kinder. In G. Braun & M. French (Eds.), *Social Entrepreneurship - Unternehmerische Ideen für eine bessere Gesellschaft* (pp. 177-189). Rostock: HIE-RO Institut, Universität Rostock.
- Mueller, S. L. (2004). Gender gaps in potential for entrepreneurship across countries and cultures. *Journal of Developmental Entrepreneurship*, 9(3), 199-220.
- Mueller, S. L., & Dato-On, M. C. (2008). Gender-role orientation as a determinant of entrepreneurial self-efficacy. *Journal of Developmental Entrepreneurship*, 13(1), 3-20.

- Müller, G. F. (2000). *Existenzgründung und Unternehmerisches Handeln*. Landau: Empirische Pädagogik e. V.
- Müller, S. (2008a). *Encouraging future entrepreneurs: the effect of entrepreneurship course characteristics on entrepreneurial intention* [Unpublished doctoral thesis]. St. Gallen: University of St. Gallen.
- Müller, S. (2008b). *Increasing entrepreneurial intention: effective entrepreneurship course characteristics*. Paper presented at the IntEnt 2008.
- Murphy, P., & Coombes, S. (2009). A model of social entrepreneurial discovery. *Journal of Business Ethics*, 87(3), 325-336.
- Murray, F., & Graham, L. (2007). Buying science and selling science: gender differences in the market for commercial science. *Industrial & Corporate Change*, 16(4), 657-689.
- Muscat, E., & Whitty, M. (2009). Social entrepreneurship: values-based leadership to transform business education and society. *Business Renaissance Quarterly*, 4(1), 31-44.
- Naffziger, D. W., Hornsby, J. S., & Kuratko, D. F. (1994). A proposed research model of entrepreneurial motivation. *Entrepreneurship: Theory & Practice*, 18(3), 29-42.
- Nahapiet, J., & Ghoshal, S. (1997). *Social capital, intellectual capital and the creation of value in firms*. Paper presented at the Academy of Management Best Papers Proceedings.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266.
- Neck, H., Brush, C., & Allen, E. (2009). The landscape of social entrepreneurship. *Business Horizons*, 52(1), 13-19.
- Net Impact. (2010). *Business as UNusual: the student guide to graduate programs 2010*. San Francisco, CA: Net Impact.
- Nga, J. K. H., & Shamuganathan, G. (2010). The Influence of Personality Traits and Demographic Factors on Social Entrepreneurship Start Up Intentions. *Journal of Business Ethics*, 95(2), 259-282.

- Nicholls, A. (2006a). Introduction. In A. Nicholls (Ed.), *Social entrepreneurship - New models of sustainable social change* (pp. 1-35). New York: Oxford University Press.
- Nicholls, A. (2006b). Playing the field: a new approach to the meaning of social entrepreneurship. *Social Enterprise Journal*, 2(1), 1-5.
- Nicholls, A. (Ed.). (2006c). *Social entrepreneurship - New models of sustainable social change*. New York: Oxford University Press.
- Nicholls, A., & Cho, A. H. (2006). Social entrepreneurship: the structuration of a field. In A. Nicholls (Ed.), *Social entrepreneurship - New models of sustainable social change* (pp. 99-118). New York: Oxford University Press.
- Odgen, T. (2011, April 13). *Thinking small* [Web log message on Stanford Social Innovation Review Blog]. Retrieved from http://www.ssireview.org/opinion/entry/thinking_small/.
- Olson, J. M., & Zanna, M. P. (1993). Attitudes and attitude change. *Annual Review of Psychology*, 44(1), 117.
- Oosterbeek, H., van Praag, M. C., & IJsselstein, A. (2008). *The impact of entrepreneurship education on entrepreneurship competencies and intentions*. Retrieved November 1, 2010, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1118251
- Orhan, M. (2001). Women business owners in France: the issue of financing discrimination. *Journal of Small Business Management*, 39(1), 95-102.
- Ostgaard, T. A., & Birley, S. (1994). Personal networks and firm competitive strategy - A strategic or coincidental match? *Journal of Business Venturing*, 9(4), 281-305.
- Ott, F. (2009, Nov. 30, 2009). "Jeder hat das Recht auf einen Kredit". *Spiegel Online*. Retrieved November 30, 2009, from <http://www.spiegel.de/wirtschaft/unternehmen/0,1518,663463,00.html>
- Peattie, K., & Morley, A. (2008). Eight paradoxes of the social enterprise research agenda. *Social Enterprise Journal*, 4(2), 91-107.

- Penner, L. A. (2002). Dispositional and organizational influences on sustained volunteerism: an interactionist perspective. *Journal of Social Issues, 58*(3), 447-467.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: multilevel perspectives. *Annual Review of Psychology, 56*(1), 365-392.
- Penner, L. A., & Finkelstein, M. A. (1998). Dispositional and structural determinants of volunteerism. *Journal of Personality and Social Psychology, 74*, 525-537.
- Penner, L. A., Fritzsche, B. A., Craiger, J. P., & Freifeld, T. S. (1995). Measuring the prosocial personality. In J. N. Butcher & C. D. Spielberger (Eds.), *Advances in personality assessment* (Vol. 10, pp. 147-164). Hillsdale: Erlbaum.
- Peredo, A. M., & Chrisman, J. J. (2006). Toward a theory of community-based enterprise. *Academy of Management Review, 31*(2), 309-328.
- Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: a critical review of the concept. *Journal of World Business, 41*(1), 56-65.
- Perrini, F. (2006). Social entrepreneurship domain: setting boundaries. In F. Perrini (Ed.), *The new social entrepreneurship: what awaits social entrepreneurship ventures?* (pp. 1-25). Bodmin: MPG Books.
- Perrini, F., & Vurro, C. (2006). Social entrepreneurship: innovation and social change across theory and practice. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social entrepreneurship* (pp. 57-85). New York: Palgrave Macmillan.
- Peterman, N. E., & Kennedy, J. (2003). Enterprise education: influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice, 28*(2), 129-144.
- Phills Jr., J. A., Deiglmeier, K., & Miller, D. T. (2008). Rediscovering social innovation. *Stanford Social Innovation Review*, (Fall), 34-43.
- Piliavin, J. A., Grube, J. A., & Callero, P. L. (2002). Role as resource for action in public service. *Journal of Social Issues, 58*(3), 469-485.
- Pirolo, L., & Presutti, M. (2010). The impact of social capital on the start-ups' performance growth. *Journal of Small Business Management, 48*(2), 197-227.

-
- Pittaway, L., & Cope, J. (2007). Entrepreneurship education. *International Small Business Journal*, 25(5), 479-510.
- Pomerantz, M. (2003). The business of social entrepreneurship in a "down economy". *In Business*, 25(2), 25-30.
- Portes, A., & Sensenbrenner, J. (1993). Embeddedness and immigration: notes on the social determinants of economic action. *The American Journal of Sociology*, 98(6), 1320-1350.
- Putman, R. D., Leonardi, R., & Nanetti, R. Y. (1993). *Making democracy work - Civic traditions in modern Italy*. Princeton: Princeton University Press.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: a meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work & Organizational Psychology*, 16(4), 353-385.
- Read, S., & Sarasvathy, S. D. (2005). Knowing what to do and doing what you know: effectuation as a form of entrepreneurial expertise. *Journal of Private Equity*, 9(1), 45-62.
- Reid, K., & Griffith, J. (2006). Social enterprise mythology: critiquing some assumptions. *Social Enterprise Journal*, 2(1), 1-10.
- Reitan, B. (1997). *Where do we learn that entrepreneurship is feasible, desirable and/or profitable? - A look at the processes leading to entrepreneurial potential*. Paper presented at the ICSB World Conference.
- Reynolds, P. D. (1991). Sociology and entrepreneurship: concepts and contributions. *Entrepreneurship: Theory & Practice*, 16(2), 47-70.
- Rise, J., & Ommundsen, R. (2011). Predicting the intention to quit smoking: a comparative study among Spanish and Norwegian students. *Europe's Journal of Psychology*, 7(1), 143-163.
- Rivis, A., & Sheeran, P. (2003). Descriptive norms as an additional predictor in the theory of planned behaviour: a meta-analysis. *Current Psychology*, 22(3), 218-233.

- Roberts, D., & Woods, C. (2005). Changing the world on a shoestring: the concept of social entrepreneurship. *University of Auckland Business Review*, 7(1), 45-51.
- Robinson, J. A. (2006). Navigating social and institutional barriers to markets: how social entrepreneurs identify and evaluate opportunities. In J. Mair, J. A. Robinson & K. Hockerts (Eds.), *Social entrepreneurship* (pp. 95-120). New York: Palgrave Macmillan.
- Robinson, J. A., Mair, J., & Hockerts, K. (2009). Introduction. In J. A. Robinson, J. Mair & K. Hockerts (Eds.), *International perspectives on social entrepreneurship* (pp. 1-6). Houndsmill: Palgrave Macmillan.
- Robinson, P. B., & Sexton, E. A. (1994). The effect of education and experience on self-employment success. *Journal of Business Venturing*, 9(2), 141-156.
- Robinson, P. B., Stimpson, D. V., Huefner, J. C., & Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship: Theory & Practice*, 15(4), 13-31.
- Roper, J., & Cheney, G. (2005). The meanings of social entrepreneurship today. *Corporate Governance: The International Journal of Effective Board Performance*, 5(3), 95-104.
- Rossmann, C. (2011). *Theory of reasoned action - Theory of planned behaviour*. Baden-Baden: Nomos.
- Ruhle, S., Mühlbauer, D., Grünhagen, M., & Rothenstein, J. (2010). *The heirs of Schumpeter: an insight view of students' entrepreneurial intentions at the Schumpeter School of Business and Economics* [Schumpeter Discussion Papers - 2010-004]. Wuppertal: University of Wuppertal, Schumpeter School of Business and Economics.
- Sachs, J. D. (2005). *The end of poverty - Economic possibilities of our time*. New York: Penguin Press.
- Sagiri, S., & Appolloni, A. (2009). Identifying the effect of psychological variables on entrepreneurial intentions. *DSM Business Review*, 1(2), 61-86.

- Salamon, L. M., & Sokolowski, S. W. (2004). *Global civil society: dimensions of the nonprofit sector* (Vol. 2). Bloomfield: Kumarian Press.
- Santos, F. M. (2009). *A positive theory of social entrepreneurship* [Working Paper – 2009/23/EFE/ISIC]. Fontainebleu: INSEAD, Social Innovation Centre.
- Sarason, Y., Dean, T., & Dillard, J. F. (2006). Entrepreneurship as the nexus of individual and opportunity: a structuration view. *Journal of Business Venturing*, 21(3), 286-305.
- Sarasvathy, S. D. (2001a). Causation and effectuation: towards a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263.
- Sarasvathy, S. D. (2001b). *Effectual reasoning in entrepreneurial decision making: existence and bounds*. Paper presented at the Academy of Management Proceedings & Membership Directory.
- Sarasvathy, S. D. (2003). Entrepreneurship as a science of the artificial. *Journal of Economic Psychology*, 24(2), 203-220.
- Sarasvathy, S. D. (2004). The questions we ask and the questions we care about: reformulating some problems in entrepreneurship research. *Journal of Business Venturing*, 19(5), 707-717.
- Sarasvathy, S. D. (2008). *Effectuation - Elements of entrepreneurial expertise*. Cheltenham: Edward Elgar.
- Sarasvathy, S. D., Dew, N., Velamuri, S. R., & Venkataraman, S. (2003). Three views on entrepreneurial opportunity. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research - An interdisciplinary survey and introduction* (pp. 141-160). Dordrecht: Kluwe Academic Publishers.
- Scales, P. C., & Benson, P. L. (2003). *Indicators of positive youth development: prosocial orientation and community service*. Retrieved December 6, 2010, from <http://www.childtrends.org/Files/ScalesBensonPaper.pdf>
- Scheiner, C. W. (2009). *Fundamental determinants of entrepreneurial behaviour*. Wiesbaden: Gabler.

- Scherer, R. F., Brodzinski, J. D., & Wiebe, F. (1991). Examining the relationship between personality and entrepreneurial career preference. *Entrepreneurship & Regional Development: An International Journal*, 3(2), 195-206.
- Scherer, R. F., Brodzinski, J. D., & Wiebe, F. A. (1990). Entrepreneur career selection and gender: a socialization approach. *Journal of Small Business Management*, 28(2), 37-44.
- Schermelleh-Engel, K., & Werner, C. (2007). *Computerunterstützte Einführung in multivariate statistische Analyseverfahren*. Retrieved February 3, 2011, from <http://user.uni-frankfurt.de/~cswerner/multivariate/>
- Schlee, R. P., Curren, M. T., & Harich, K. R. (2009). Building a marketing curriculum to support courses in social entrepreneurship and social venture competitions. *Journal of Marketing Education*, 31(1), 5-15.
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge: Harvard University Press.
- Schumpeter, J. A. (1936). *The theory of economic development - An inquiry into profits, capital, credit, interest, and the business cycle*. Cambridge: Harvard University Press.
- Schumpeter, J. A. (1950). *Capitalism, socialism, and democracy*. New York: Harper & Brothers Publishers.
- Schwab Foundation. (2009). *What is a social entrepreneur?* Retrieved November 9, 2009, from <http://www.schwabfound.org/sf/SocialEntrepreneurs/Whatisasocialentrepreneur/index.htm>
- Seanor, P., & Meaton, J. (2007). Making sense of social enterprise. *Social Enterprise Journal*, 3(1), 90-100.
- Sector, I. (2001). *Giving and volunteering in the United States*. Washington: Independent Sector.
- Seelos, C., & Mair, J. (2005). Social entrepreneurship: creating new business models to serve the poor. *Business Horizons*, 48(3), 241-246.

- Seelos, C., & Mair, J. (2009). Hope for sustainable development: how social entrepreneurs make it happen. In R. Ziegler (Ed.), *An introduction to social entrepreneurship - Voices, preconditions, contexts* (pp. 228-246). Cheltenham: Edward Elgar Publishing Ltd.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448-469.
- Shane, S. (2003). *A general theory of entrepreneurship - The individual-opportunity nexus*. Cheltenham: Edward Elgar.
- Shane, S., & Eckhardt, J. T. (2003). The individual-opportunity nexus. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research - An interdisciplinary survey and introduction* (pp. 161-191). Dordrecht: Kluwer Academic Publishers.
- Shane, S., & Khurana, R. (2003). Bringing individuals back in: the effects of career experience on new firm founding. *Industrial & Corporate Change*, 12(3), 519-543.
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13(2), 257-279.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship* (pp. 72-90). Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Sharir, M., & Lerner, M. (2006). Gauging the success of social ventures initiated by individual social entrepreneurs. *Journal of World Business*, 41(1), 6-20.
- Sharir, M., Lerner, M., & Yitshaki, R. (2009). Long-term survivability of social ventures: qualitative analysis of external and internal explanations. In J. A. Robinson, J. Mair & K. Hockerts (Eds.), *International perspectives on social entrepreneurship* (pp. 75-96). Houndsmills: Palgrave Macmillan.

- Shaver, K. G., & Scott, L. R. (1991). Person, process, choice: the psychology of new venture creation. *Entrepreneurship: Theory & Practice*, 16(2), 23-45.
- Shaw, E., & Carter, S. (2005). *Social entrepreneurship: theoretical antecedents and empirical analysis of entrepreneurial processes and outcomes*. Paper presented at the BCERC.
- Shaw, E., & Carter, S. (2007). Social entrepreneurship: theoretical antecedents and empirical analysis of entrepreneurial processes and outcomes. *Journal of Small Business and Enterprise Development*, 14(3), 418-434.
- Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15(3), 325-343.
- Shetty, P. (2004). Attitude towards entrepreneurship in organisations. *Journal of Entrepreneurship*, 13(1), 53-68.
- Simms, S. V. K., & Robinson, J. A. (2005). *Activist or entrepreneur? An identity-based model of social entrepreneurship*. Paper presented at the USASBE 2006 Conference.
- Singh, G., & DeNoble, A. (2003). Views on self-employment and personality: an exploratory study. *Journal of Developmental Entrepreneurship*, 8(3), 265-281.
- Skoll Foundation. (2009). *What is a social entrepreneur?* Retrieved November 7, 2009, from <http://www.skollfoundation.org/aboutsocialentrepreneurship/whatis.asp>.
- Smith-Hunter, A. E. (2008). Toward a multidimensional model of social entrepreneurship: definitions, clarifications, and theoretical perspectives. *Journal of Business & Economics Research*, 6(6), 93-112.
- Social entrepreneurship. (n.d.). Retrieved November 9, 2009, from Wikipedia: http://en.wikipedia.org/wiki/Social_entrepreneurship.
- Soetanto, D. P., Pribadi, H., & Widyadana, G. A. (2010). Determinant factors of entrepreneurial intention among university students. *IUP Journal of Entrepreneurship Development*, 7(1/2), 23-37.

- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566-591.
- Spear, R. (2006). Social entrepreneurship: a different model? *International Journal of Social Economics*, 33(5/6), 399-410.
- Stewart, W. H., & Roth, P. L. (2001). Risk propensity differences between entrepreneurs and managers: a meta-analytic review. *Journal of Applied Psychology*, 89(1), 145-153.
- Steyaert, C. (2006). Introduction: what is social in social entrepreneurship? In C. Steyaert & D. Hjorth (Eds.), *Entrepreneurship as social change: a third movements in entrepreneurship book* (pp. 1-18). Cheltenham: Edward Elgar Publishing
- Stumbitz, B. (2010). *The role and potential of older social entrepreneurs in an ageing society*. Paper presented at the International Social Innovation Conference.
- Sud, M., VanSandt, C., & Baugous, A. (2009). Social entrepreneurship: the role of institutions. *Journal of Business Ethics*, 85(Supplement 1), 201-216.
- Sundeen, R. A., & Raskoff, S. A. (1995). Teenage volunteers and their values. *Nonprofit and Voluntary Sector Quarterly*, 24(4), 337-357.
- Sutton, S. (1998). Predicting and explaining intentions and behavior: how well are we doing? *Journal of Applied Social Psychology*, 28(15), 1317-1338.
- Swedberg, R. (2006). Social entrepreneurship: the view of the young Schumpeter. In C. Steyaert & D. Hjorth (Eds.), *Entrepreneurship as social change: a third movements in entrepreneurship book* (pp. 21-34). Cheltenham: Edward Elgar Publishing.
- Sylter Runde. (2004). *Social Entrepreneurship - Wer unternimmt etwas für die Gesellschaft* [Memorandum der Sylter Runde]. Retrieved June 8, 2009, from http://www.sylter-runde.de/mediapool/6/63715/data/041018_Memorandum_Social-Entrepreneurship.pdf.

- Tan, W.-L., Williams, J., & Tan, T.-M. (2003). *What is the 'social' in social entrepreneurship?* Paper presented at the 48th World International Conference for Small Businesses.
- Tan, W.-L., & Yoo, S.-J. (2011). *Nonprofits and social entrepreneurship intentions: Examining the role of organizational attributes*. Paper presented at the ICSB.
- Teixera, A. A. C., & Forte, R. P. (2009). *Unbounding entrepreneurial intents of university students: a multidisciplinary perspective* [Working Paper - 322]. Porto: University of Porto.
- The Global Academy for Social Entrepreneurship. (n.d.). *The state of social entrepreneurship learning - a survey of course work and extracurricular activity*. Retrieved February 23, 2010, from <http://www.universitynetwork.org/sites/universitynetwork.org/files/files/Ashoka%20Global%20Academy%20-%20State%20of%20SE%20Learning.pdf>
- The Jobs Letter. (2001). *Special issue social entrepreneurs*. Retrieved October 29, 2009 from <http://www.jobsletter.org.nz/pdf/jbl147.pdf>.
- The New Heroes. (2005). *What is social entrepreneurship?* Retrieved November 7, 2009, from <http://www.pbs.org/opb/thenewheroes/whatis/index.html>.
- Thompson, E. R. (2009). Individual entrepreneurial intent: construct clarification and development of an internationally reliable metric. *Entrepreneurship: Theory & Practice*, 33(3), 669-694.
- Thompson, J., Alvy, G., & Lees, A. (2000). Social entrepreneurship – A new look at the people and the potential. *Management Decision*, 38(5), 328-338.
- Thompson, J., & Dorothy, B. (2006). The diverse world of social enterprise: a collection of social enterprise stories. *International Journal of Social Economics*, 33(5/6), 361-375.
- Thorbjornsen, H., Pedersen, P. E., & Nysveen, H. r. (2007). "This is who i am": Identity expressiveness and the theory of planned behavior. *Psychology & Marketing*, 24(9), 763-785.

- Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. *Entrepreneurship & Regional Development, 11*(3), 269-280.
- Tracey, P., & Phillips, N. (2007). The distinctive challenge of educating social entrepreneurs: a postscript and rejoinder to the special issue on entrepreneurship education. *Academy of Management Learning & Education, 6*(2), 264-271.
- Trexler, J. (2008). Social entrepreneurship as an algorithm: is social enterprise sustainable? *E:CO, 10*(3), 65-85.
- Ucbasaran, D., Westhead, P., & Wright, M. (2009). The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of Business Venturing, 24*(2), 99-115.
- Utsch, A. (2004). *Psychologische Einflussgrößen von Unternehmensgründung und Unternehmenserfolg* [Unpublished doctoral thesis]. Gießen: Liebig University.
- Vaghely, I. P., & Julien, P.-A. (2010). Are opportunities recognized or constructed?: An information perspective on entrepreneurial opportunity identification. *Journal of Business Venturing, 25*(1), 73-86.
- Van Auken, H., Fry, F. L., & Stephens, P. (2006). The influence of role models on entrepreneurial intentions. *Journal of Developmental Entrepreneurship, 11*(2), 157-167.
- VanSandt, C., Sud, M., & Marmé, C. (2009). Enabling the original intent: catalysts for social entrepreneurship. *Journal of Business Ethics, 90*(Supplement 3), 419-428.
- Vasakarla, V. (2008). A study on social entrepreneurship and the characteristics of social entrepreneurs. *ICFAI Journal of Management Research, 7*(4), 32-40.
- Vasi, I. B. (2009). New heroes, old theories? Toward a sociological perspective on social entrepreneurship. In R. Ziegler (Ed.), *An Introduction to Social Entrepreneurship - Voices, Preconditions, Contexts* (pp. 155-173). Cheltenham: Edward Elgar Publishing Ltd.
- Veciana, J. M., Aponte, M., & Urbano, D. (2005). University students' attitudes towards entrepreneurship: a two countries comparison. *International Entrepreneurship and Management Journal, 1*(2), 165-182.

- Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. In J. A. Katz (Ed.), *Advances in entrepreneurship, firm emergence, and growth* (Vol. 3, pp. 119-138). Greenwich: JAI Press.
- Verheul, I. (2003). Commitment or control? Human resource management practices in female and male-led businesses. Retrieved November 2, 2010, from <http://www.ondernemerschap.nl/pdf-ez/N200306.pdf>
- Verzat, C., & Bachelet, R. (2006). Developing an entrepreneurial spirit among engineering college students: what are the educational factors? In A. Fayolle & H. Klandt (Eds.), *International entrepreneurship education - Issues and newness* (pp. 191-217). Cheltenham, UK: Edward Elgar.
- Volkman, C. K. (2009). Entrepreneurship in higher education. In World Economic Forum (Ed.), *Educating the next wave of entrepreneurs - Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century* (pp. 42-79) [Report of the Global Education Initiative]. Geneva, Switzerland.
- Volkman, C. K., & Grünhagen, M. (2010). *Academics' entrepreneurial intentions and the entrepreneurial university - Templates for testing a people-oriented support infrastructure for entrepreneurship at universities*. Paper presented at the IECER.
- Waddock, S. A., & Post, J. E. (1991). Social entrepreneurs and catalytic change. *Public Administration Review*, 51(5), 393-401.
- Wakabayashi, A., Baron-Cohen, S., Wheelwright, S., Goldenfeld, N., Delaney, J., Fine, D., et al. (2006). Development of short forms of the Empathy Quotient (EQ-Short) and the Systemizing Quotient (SQ-Short). *Personality and Individual Differences*, 41(5), 929-940.
- Walter, S. G. (2008). *Gründungsintentionen von Akademikern - Eine empirische Mehrebenenanalyse personen- und fachbereichsbezogener Einflüsse*. Wiesbaden: Gabler.
- Walter, S. G., & Dohse, D. (2009). *The interplay between entrepreneurship education and regional knowledge potential in forming entrepreneurial intentions*. Retrieved November 1, 2010, from <http://econstor.eu/dspace/handle/10419/28376>

- Walter, S. G., & Walter, A. (2008). Deutsche Universitäten als Gründungsinkubatoren: Der Beitrag der Gründungsausbildung zur Gründungsintention von Studierenden. *Zeitschrift für betriebswirtschaftliche Forschung*, 60(September), 542-569.
- Wang, T. (2007). *Ethics & enterprise: an examination of different normative theories of the firm* [Unpublished thesis for Ethics in Society Honors Program]. Palo Alto: Stanford University.
- Wang, C. K., Wong, P. K., & Lu, Q. (2001). *Entrepreneurial intentions and tertiary education in Singapore*. Paper presented at the Conference on Technological Entrepreneurship in the Emerging Regions of the New Millennium.
- Weerawardena, J., McDonald, R. E., & Mort, G. S. (2010). Sustainability of nonprofit organizations: an empirical investigation. *Journal of World Business*, 45(4), 346–356.
- Weerawardena, J., & Mort, G. S. (2006). Investigating social entrepreneurship: a multidimensional model. *Journal of World Business*, 41(1), 21-35.
- Wei-Skillern, J., Austin, J., Leonard, H., & Stevenson, H. (2007). *Entrepreneurship in the social sector*. Thousand Oaks: Sage Publications.
- Weick, K. E. (1979). *The social psychology of organizing* (2 ed.). Reading: Addison-Wesley Publishing Company.
- White, K. M., Thomas, I., Johnston, K. L., & Hyde, M. K. (2008). Predicting attendance at peer-assisted study sessions for statistics: role identity and the theory of planned behavior. *Journal of Social Psychology*, 148(4), 473-492.
- Winkler, A. (2008). Gemeinsamkeiten und Unterschiede zwischen Social Entrepreneurs und Business Entrepreneurs. In G. Braun & M. French (Eds.), *Social Entrepreneurship - Unternehmerische Ideen für eine bessere Gesellschaft* (pp. 95-119). Rostock: HIE-RO Institut, Universität Rostock.
- Yli-Renko, H., Autio, E., & Sapienza, H. J. (2001). Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. *Strategic Management Journal*, 22(6/7), 587-613.

- Young, D. R. (1986). Entrepreneurship and the behavior of nonprofit organizations: Elements of a Theory. In S. Rose-Ackerman (Ed.), *The economics of nonprofit institutions: studies in structure and policy* (pp. 161-184). New York: Oxford University Press.
- Yunus, M. (2006). Social business entrepreneurs are the solution. In A. Nicholls (Ed.), *Social entrepreneurship - New models of sustainable social change* (pp. 39-44). New York: Oxford University Press.
- Yunus, M. (2007). *Creating a world without poverty - Social business and the future of capitalism*. New York: PublicAffairs.
- Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: motives, search processes and ethical challenges. *Journal of Business Venturing*, 24(5), 519-532.
- Zhao, H., & Seibert, S. E. (2006). The big five personality dimensions and entrepreneurial status: a meta-analytical review. *Journal of Applied Psychology*, 91(2), 259-271.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6), 1265-1272.
- Ziegler, R. (2009). Introduction: voices, preconditions, contexts. In R. Ziegler (Ed.), *An introduction to social entrepreneurship - Voices, preconditions, contexts* (pp. 1-18). Cheltenham: Edward Elgar Publishing Ltd.

ERKLÄRUNG

Hiermit erkläre ich, dass ich die eingereichte Dissertation **Heart over mind –An empirical analysis of social entrepreneurial intention formation on the basis of the theory of planned behaviour** selbstständig verfasst habe. Bei der Abfassung habe ich nur die in der Arbeit angegebenen Hilfsmittel benutzt und alle wörtlich oder inhaltlich übernommenen Stellen als solche gekennzeichnet. Die vorgelegte Dissertation hat weder in der gegenwärtigen noch in einer anderen Fassung einem anderen Fachbereich der Bergischen Universität Wuppertal oder einer anderen wissenschaftlichen Hochschule vorgelegen.

Wuppertal & Berlin, July, 2011

Kati Ernst