

Master thesis

The difference in the idea validation and development process of social and commercial entrepreneurs



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This research serves as the graduation project for the Master Strategic Entrepreneurship in the academic year 2018-2019, at the Rotterdam School of Management. Hereby, I declare that I, Lisan ten Arve, am the only author of this research. No other sources have been used, apart from what is listed in the reference list. I have full responsibility for the content of this thesis. The Rotterdam School of Management is only responsible for the educational coaching and beyond that cannot be held responsible for the content.

ACKNOWLEDGEMENTS

I would like to thank dr. Magdalena Cholakova for her supervision during this thesis trajectory, as well as dr. René Bakker for his co-reading activities. Special thanks to all the entrepreneurs who I was able to talk to. Because of your dedication, peculiarities, passion and friendly characters, conducting the interviews was without any doubt my favourite part of this entire project.

This last year of my student time was on several fronts, by far, the most inspiring, mind wrecking, exciting and challenging of all six. I want to thank my loving parents, loyal brother and adorable friends for supporting me and making so many different memories with me.

You are the best.

EXECUTIVE SUMMARY

Within the academic field of social entrepreneurship, several authors call for a process-orientated approach to enrich the understanding of the phenomenon (Dacin, Dacin, & Matear, 2010; McMullen & Dimov, 2013). As until now, the process-orientated research within social entrepreneurship has mainly focussed on the earliest intention-formation phase (Corner & Ho, 2010; Hockerts, Mair, & Robinson, 2010), this study continues with exploring the social entrepreneurial process from the moment the founder has decided to start his company by empirically addressing the following question: How does the idea validation process of social and commercial entrepreneurs differ when they develop and validate their business idea?

As scholars state that the individual founder takes a critical role in the strategic development of his or her business (Gartner, 1985; Mort, Weerawardena, & Carnegie, 2002; Shaver & Scott, 1991), differences are likely to arise in this process due to the suggestion that social and commercial entrepreneurs possess different cognitive and psychological characteristics. It is argued that social entrepreneurs might be less confident in their ability to start a business (Harding, 2007; Hoogendoorn, 2011). Social entrepreneurs have more other-orientated motivations to start a business (Miller et al., 2012), as well as they might possess different personal values (Mair & Marti, 2006).

An inductive comparative case study design was used in order to contribute to a better understanding of the concept of social entrepreneurship as it emerges over time. The customer development process of Blank & Dorf (2012) was used as underlying framework, which entails that vocabulary, elements and evaluation criteria are used in order to explore the differences in the process. By the means of 16 semi-structured interviews, a within- and cross-case analysis were conducted. This resulted in identifying four similarities and five differences in the idea validation and development process, that together are visualised in an emerging process model (p.72)

First, both groups argue that developing a company is an iterative process with many unforeseen challenges. Second, both social and commercial entrepreneurs acknowledge that the collaboration with (corporate) organisations can form bottlenecks in their development process. Third, similarities were identified in terms of teamwork. All companies were founded by multiple founders well as they all argue for a good founding team composition. At last, contrary to the arguments in the theoretical framework, no single insight was derived about the confidence levels of social entrepreneurs compared to the commercial entrepreneurs.

Additionally, the findings suggest that social entrepreneurs might pivot more in order to achieve the product/market fit. It is argued that the prosocial values of social entrepreneurs might make the financial business model validation more complex, as well as that the other-centred motivations make social entrepreneurs prone for the availability bias as the confirmation bias. Second, it is argued that social entrepreneurs might start later with validating their revenue model than commercial entrepreneurs, as the other-centred motivations of social entrepreneurs lead to the prioritization of achieving the problem/solution fit instead of the product/market fit. Moreover, it is suggested that social entrepreneurs launch the high-fidelity MVP later in the development process, as they want to ensure a high quality, both in order to serve their customers as well as in order to assure their reputation in their embedded network. At last, it is suggested that due to the financial business model complexity, social entrepreneurs perceive the search for investment as a continuous process during the entire entrepreneurial journey, whereas commercial entrepreneurs perceive this as an incidental process.

In the practical implications, it is argued that the proposed predictable patterns can be used as guidelines for management and coaching purposes. It is suggested that social entrepreneurs need to put more emphasis on using validation models such as the Lean startup (Ries, 2010) and Customer development framework (Blank & Dorf, 2012), as that might result in a more equally divided prioritisation on the achievement of the problem/solution fit and the

product/market fit. Moreover, it might prevent the influence of personal values and other-centred motivations in the idea validation process.

In conclusion, this research contributes to the literature as it gave initial insights on the differences between the cognitive processes of social and commercial entrepreneurs when they validate their business idea. Additionally, it gave insights on how cognitive characteristics of social entrepreneurs and other factors had an influence in this process. The proposed patterns together suggest that differences might occur in terms of the prioritisation, the timing and the perception of activities in the validation process as well as that there are signs that the social entrepreneurial validation process is more iterative. However, drawing firm conclusion on the basis of this study might be too short-sighted as the findings simultaneously reveals possible organisational factors and case-specific, restrictive details that influence, substantiate and disprove the patterns. Additionally, the limited amount of cases are developed on the retrospective view of the founders, which also limits the generalizability of the findings.

Therefore, future research should continue with studying the cognitive characteristics of social entrepreneurs, by further exploring whether personal values and other-centred motivation indeed have such an influence on the idea validation and development process, by constructing a case study design that eliminates all the organisational and environmental differences between the two case groups. Additionally, future research can take the road of exploring the influence of self-efficacy in the social entrepreneurial process as no findings arose in this research.

Keywords: Social entrepreneurship, idea validation and development, cognitive characteristics, process research

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1. INTRODUCTION

During the last decade, social entrepreneurship has become an increasingly popular phenomenon (Dacin, Dacin, & Tracey, 2011). Social entrepreneurs are individuals that actively contribute to society by developing business models which create solutions to persistent environmental or social problems (Zahra, Gedajlovic, Neubaum, & Shulman, 2009). This entails that they pursue a double mission of simultaneously striving for social value and commercial value (Austin, Stevenson, & Wei-Skillern, 2006; Zahra et al., 2009). To date, academics within the social entrepreneurship field mainly focused their attention on defining and characterizing social entrepreneurship and contrasting this phenomenon against its commercial equivalent (Corner & Ho, 2010; Mair & Marti, 2006).

The result is that the majority of the research on social entrepreneurship is focused on the social entrepreneur as a static concept, instead of on social entrepreneurship as a process through which a new venture unfolds and outcomes are achieved (Dacin, Dacin, & Matear, 2010; Goldstein, Hazy, Silberstang, & Lewin, 2008; Robinson, 2006). While several scholars in the field of (social) entrepreneurship call for a more process-orientated approach in understanding the phenomenon (Cornelissen, Holt, & Zundel, 2011; Dacin et al., 2011; McMullen & Dimov, 2013). Scholars that did explore social entrepreneurship as a process, mainly focus on the earliest intention-formation phase in entrepreneurial activity (Hockerts, 2017; Hockerts et al., 2010). The process of identifying social entrepreneurial opportunities is more complex, gradual and recursive compared to its commercial counterpart (Corner & Ho, 2010). This insight aroused interest whether there are also differences in the process after the social entrepreneur has decided to start his or her business and continues to validate, gather resources and develop the enterprise.

This idea validation and development phase is characterised as an iterative process with high uncertainty and high complexity levels (Blank & Dorf, 2012; Ries, 2010). How the

entrepreneur navigates through this challenging process is determined by, among other things, the continuous interaction of thoughts, feedback and judgements of results of the entrepreneur (Mitchell et al., 2007; Ries, 2010). In other words, how entrepreneurs reason, forms the basis for strategic direction, pace and resoluteness in the entrepreneurial process (Felin & Zenger, 2009; Mitchell et al., 2007). As scholars argue that the individual place a critical role in the venture development process (Gartner, 1985; Mort et al., 2002; Shaver & Scott, 1991), differences might arise in the idea validation and development process since scholars identified several cognitive and psychological characteristics that social entrepreneurs differentiate from commercial entrepreneurs.

First, according to the research of Hoogendoorn (2011) and Harding (2007), social entrepreneurs are less confident in their abilities to start their own venture than commercial entrepreneurs. While confidence in one-self results in greater emotional and cognitive resilience (Hayward, Forster, Sarasvathy, & Fredrickson, 2010). Second, research shows that the motives to start your own venture differ between social entrepreneurs and commercial entrepreneurs (Miller et al., 2012). Social entrepreneurs have more other-centred motives, whereas commercial entrepreneurs have more self- or organisation-centred motives. The different motives can have an influence on evaluation mechanisms as well as on the determinism of the entrepreneurs (Miller et al., 2012). Third, scholars argue that social enterprises are established by individuals with particular prosocial values such as responsibility, helpfulness and protection (Mair & Marti, 2006; Sastre-castillo, Peris-ortiz, & Valle, 2015; Zahra et al., 2009). These values represent key cornerstones for institutional logics (Pache, 2010), which refer to the patterns of practices that give direction for decision making and structure cognition. However, these institutional logics are likely to create dilemmas for the entrepreneurs between pursuing social impact and their commercial activities during the entire entrepreneurial process.

The present study builds upon the notion that because of these different psychological and cognitive characteristics, social and commercial entrepreneurs might make different choices while they navigate through the idea validation and development process. By conducting an inductive comparative case study, the present research attempts to construct initial insights by empirically addressing the following question: How does the idea validation process of social and commercial entrepreneurs differ when they develop and validate their business idea? The data analysis aims to explore whether such differences exist, aims to give an initial understanding in these potential different patterns and aims to provide directions for future research.

This qualitative research intends to provide both theoretical and practical insights into the field of social entrepreneurship. First, the present study contributes to the theoretical level by exploring the difference between the cognitive processes of social and commercial entrepreneurs. Therefore, it aims to contribute to a better theoretical understanding of the construct of social entrepreneurship and can serve as a source for future research on the cognitive characteristics of social entrepreneurs. Second, it provides insights into the different factors that influence the validation process of social entrepreneurs. Third, a better understanding of these differences can have important implications for the establishment and management of social enterprises (Mort et al., 2002). Results can give insights for designing education and training techniques, as well as for management support.

The study is structured as follows. First, the theoretical framework will provide the reader with background information on the topic of social entrepreneurship, entrepreneurial cognition, social entrepreneurial cognitive and psychological characteristics, idea validation and development frameworks and social entrepreneurial challenges. The aim is to introduce the topic, to justify the research question and provide knowledge that makes interpreting the data easier. Second, the methodology section outlines and justifies the research strategy and case

requirements. Third, the data-analysis consists of a within- and cross-case analysis that together leads to an emerging process model that visualises the similarities and differences identified in the process. We conclude by discussing the limitations of this study, practical implications and suggestions for future research.

2. THEORETICAL FRAMEWORK

The theoretical framework encompasses the following elements. First, an introduction to the phenomenon of social entrepreneurship is presented by elaborating on the definitions. Second, the importance of a process-orientation in entrepreneurship research is explained as well as this chapter consists of insights into the existing process-orientated research in the social entrepreneurial field. Third, we continue by explaining why the individual is so important to study when exploring the idea validation and development phase of entrepreneurs. Fourth, three cognitive characteristics of social entrepreneurs are outlined that might have an influence on the process. Fifth, an extensive description is given about two different frameworks in the literature that propose methods for idea validation and development. These are outlined as underlying frameworks, as it provides the reader with phases, activities, vocabulary and evaluation criteria that are likely to come apparent in the case study data. Sixth, two social entrepreneurial challenges on the organisational level are set forth, as they might also have an influence on the idea validation and development process. The theoretical framework is finalised with a short summary of the theoretical framework.

2.1 An introduction to the phenomenon of social entrepreneurship

Although institutions or organisations addressing social problems have always existed, the term social entrepreneurship is a relatively new phenomenon (Dacin et al., 2011). In everyday language, social entrepreneurs are individuals concerned with a range of issues including poverty, social inequality and natural environment. This phenomenon continues to grow in popularity since prominent politicians, celebrities and influential organizations draw public attention to examples of successful social entrepreneurial ventures (Austin et al., 2006). Also within the academic field, scholarly interest in social entrepreneurship has grown and resulted in a debate about the definition, scope and goals (Zahra et al., 2009).

Since social entrepreneurship has various manifestations, it, therefore, has been studied in a number of different research domains such as not-for-profit, for-profits, public sector and a combination of the three (Short, Moss, & Lumpkin, 2009). Moreover, disagreement already exists about the definition of entrepreneurship and by adding the prefix ‘social’ the debate is further exacerbated (Zahra et al., 2009). The result is the absence of a universally accepted definition and therefore a large variety of definitions of social entrepreneurship and social ventures exist. Table 1 gives an overview of the social entrepreneurship scholars, which will be frequently used within the theoretical framework.

Scholar	Definition
Mair & Marti (2006)	Social entrepreneurship is defined as a process of creating value by combining resources in new ways. Second, these resource combinations are intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs. And third, when viewed as a process, social entrepreneurship involves the offering of services and products but can also refer to the creation of new organizations *
Hockerts, Mair, & Robinson, (2010)	Social entrepreneurship is defined as the innovative use of resources to explore and exploit opportunities that meet a social need in a sustainable manner
Zahra, Gedajlovic, Neubaum, & Shulman (2009)	Social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating and sustaining new ventures in an innovative manner
Mort, Weerawardena, & Carnegie, (2002)	Social entrepreneurship as a multidimensional construct involving the expression of entrepreneurially virtuous behaviour to achieve the social mission, a coherent unity of purpose and action in the face of moral complexity, the ability to recognise social value-creating opportunities and key decision-making characteristics of innovativeness, proactiveness and risk-taking.

Austin, Stevenson, & Wei-Skillern, (2006)	Social entrepreneurship is defined as innovative, social value creating an activity that can occur within or across the nonprofit, business, or government sectors.
Shaw & Carter (2007)	Social entrepreneurs identify under-utilised resources – people, buildings, equipment – and find ways of putting them to use to satisfy unmet social needs. They innovate new welfare services and new ways of delivering existing services.

Table 1 Definitions of social entrepreneurship

*Definition also used in the article of Short, Moss & Lumpkin (2009) and Dacin, Dacin & Tracey (2011)

Although no universally accepted definition exists, all definitions imply that social entrepreneurs pursue a dual mission of exploiting opportunities for creating social value and creating a financially sustainable business. Whereas, the commercial entrepreneur has the economic goal to create profitable operations for private gains, the social entrepreneur constantly has to balance a social and economic goal in order to continue creating (social) impact (Austin et al., 2006; Zahra et al., 2009). This concurrent value creation has been defined as the ‘double bottom line’ and is what makes social entrepreneurship so unique (Dees, 1998; Hockerts et al., 2010). To what extent the focus is on either of both forms might vary per social venture, time and entrepreneurial stage (Dacin, Dacin, & Matear, 2010; Hockerts et al., 2010; Zainuddin & Scholar, 2018). The joint pursuit conveys divergent demands and goals, which can create tensions and dilemma’s on both the organizational and individual level (Townsend & Hart, 2008; Wry & York, 2017). As a result, the mind of the social entrepreneur is an interesting phenomenon for cognitive, psychology and decision-making scholars (Dacin et al., 2011).

2.2 Social entrepreneurship as a process

The majority of the research on social entrepreneurship is focused on differentiating the concept from its commercial equivalent by characterizing the concept or studying the social

entrepreneur at the individual level (Austin et al., 2006; Dacin et al., 2010). While, scholars that explore the future research possibilities in this field, call for a more dynamic approach by examining social entrepreneurship as a process (Dacin et al., 2010; Goldstein et al., 2008; Hockerts, 2017; Robinson, 2006). This call fits into a more general trend in the entrepreneurship research in which different scholars argue for a more process-orientated approach (Cornelissen, Clarke, & Clarke, 2010; McMullen & Dimov, 2013). Process research is defined as the study of the *'sequence of events or activities that describe how particular things change over time'* (McMullen & Dimov, 2013, p. 1842). Gartner (1990) states that the process through which, for instance, a venture unfolds, decisions are made or outcomes are achieved is essential for our understanding of the phenomenon of entrepreneurship. Additionally, studying entrepreneurship as a process entails that time is being embedded as an essential component, rather than neglected or treated as a threat to the research design (McMullen & Dimov, 2013). Moreover, the application of a process approach might reveal predictable patterns and actions that variance-orientated research does tend to miss (McMullen & Dimov, 2013). In conclusion, exploring the process of how a venture unfolds and decisions are made, contributes to our understanding of (social) entrepreneurship phenomenon (Dacin et al., 2011; McMullen & Dimov, 2013).

Although scholars have called for more, the process-orientation is not entirely ignored in the social entrepreneurial literature over the years. However, the researchers that studied social entrepreneurship as a process, mainly focussed on the earliest intention-formation phase in the entrepreneurial journey (Hockerts, 2017). For instance, valuable insights were derived from scholars who explored the difference between social and commercial entrepreneurs in idea recognition and identification of new business opportunities (Corner & Ho, 2010; Hockerts et al., 2010). The first recognised pattern entailed that that the process of identifying social entrepreneurial opportunities is more complex, gradual and recursive compared to its commercial counterpart (Corner & Ho, 2010). This entails that opportunities are not clearly

delineated by an identification and exploitation phase, as well as that neither a purely discovery or creation view, was recognised. The second pattern argues that multiple actors are involved during the entire process, taking collective action together. At last, a pattern was recognised that social entrepreneurs created awareness and information about the opportunity through past life experiences, rather than knowledge from past work or education.

This research continues with the former insights and contributes to the research domain by conducting an inductive comparative cases study on the differences between the social versus commercial entrepreneurial process. More specifically, this study focusses on how social and commercial entrepreneurs develop and validate their idea over time after the opportunity is recognised and the entrepreneur has established the venture. As just explained, research indicates that a strict distinction between identification and exploitation might be blurry, therefore the start-off point for this research is set at the moment the founder has made the final decision to pursue his plan and establishes his or her business. This early stage of building a business is interesting to study since it is characterised with high uncertainty and high complexity as continuous experimentation and validation of the business opportunity take place and many variables and partners have to be considered (Ries, 2010).

2.3 Entrepreneurial cognition in the idea validation and development process

Although the activities in the idea validation and development process might differ per organisation or sector, in every case the entrepreneur(s) determines the strategic direction, pace and resoluteness in the entrepreneurial process (Felin & Zenger, 2009). How the entrepreneur navigates through this iterative development process is determined by, among other things, the continuous interaction of thoughts, feedback and judgements of results of the entrepreneur (Mitchell & Shepherd, 2010; Ries, 2010). Therefore, the individual entrepreneur is considered crucial in the entrepreneurial process (Gartner, 1985; Mort et al., 2002). The study towards what is happening inside in the 'mental black box' of the entrepreneur is characterised as the study

towards cognitive entrepreneurship (Mitchell et al., 2007). The cognitive perspective has been a major trend within the academic field of entrepreneurship (Felin & Zenger, 2009; Gaglio, 2004; Gaglio & Winter, 2009; Mitchell et al., 2007).

This trend emerged in line with the ongoing inquiry of why some people recognize opportunities and are able to create value for businesses while others do not (Mitchell et al., 2007). Since the late '80s, scholars had been using the trait approach in order to capture the uniqueness of entrepreneurs against non-entrepreneurs, however, failed to find proof for the fundamental idea that entrepreneurs are somehow exceptional (Shaver & Scott, 1991). The introduction of the cognitive view to entrepreneurship was a breakthrough and let scholars be able to explain the role of the individual in the entrepreneurial process, by abandoning the assumption that particular personality traits determine the entrepreneurs uniqueness and by indicating that it is the way they process information which makes entrepreneurs different (Mitchell et al., 2007).

However, a response to this came from the psychology field, by arguing that under comparable circumstances, not all people would become an entrepreneur, concluding that individual dimensions should still play a role (Herron & Robinson, 1993). This resulted in the interaction approach that supposes that there should be a focus on the psychological and cognitive determinants of entrepreneurial behaviour (Baron, 1998; Brigham & Castro, 2003; Busenitz & Barney, 1997). In their paper on the process of venture creation, Shaver and Scott (1991, p.39) provide an adequate illustration of this approach:

“ The result has been to concentrate on almost anything except the individual ... But none of these will, alone, create a new venture. For that, we need a person, in whose mind all of the possibilities come together, who believes that innovation is possible, and who has the motivation to persist until the job is done. Person, process, and choice: for these, we need a truly psychological perspective on new venture creation.”

In other words, the psychological approach incorporates the importance of individual cognitive and psychological characteristics in order to explain entrepreneurial behaviour (Brigham & Castro, 2003; Herron & Robinson, 1993). For instance, findings assume that entrepreneurs adopt a more future-orientated perspective (Baron, 1999), are more prone to several cognitive biases, such as counterfactual thinking, affect infusion, self-serving bias, and planning fallacy (Baron, 1999), and apply different heuristics (Busenitz & Barney, 1997). The same approach has been taken in order to explore the differences between social and commercial entrepreneurs (Dacin et al., 2010). They argue that social entrepreneurs possess particular cognitive characteristic that might have an influence on how they approach the entrepreneurial process (Hoogendoorn, 2011; Miller et al., 2012; Zahra et al., 2009). This research is built upon the notion that because of these differences, social and commercial entrepreneurs might differ when they reason through the idea validation and development process. The next chapter will discuss three cognitive characteristics of social entrepreneurs, that might have an influence on the way social entrepreneurs make decisions.

2.4 Cognitive and psychological characteristics of social entrepreneurs

2.4.1 Self-confidence in their abilities to start their own business

As mentioned, the idea validation and development process is characterised as vivid, challenging and comes with high levels of uncertainty (Ries, 2010). While overoptimism and overconfidence are characterised as mainly damaging to the entrepreneurial process, confidence in one-self is essential to operate in such an unpredictable work environment and establish a successful business (Hayward et al., 2010). Where overoptimism refers to '*the tendency to expect positive outcomes even when these expectations are not rationally justified*' (Hmieleski & Baron, 2008, p.287), confidence is related to self-efficacy, which describes the degree to which an individual believes that he or she can accomplish a particular task (Forbes, 2005).

This is important because greater self-efficacy results in greater emotional and cognitive resilience (Hayward et al., 2010).

According to the research of Hoogendoorn (2011), social entrepreneurs have lower self-efficacy levels and therefore tend to be less confident than commercial entrepreneurs in their abilities to start their own business (Hoogendoorn, 2011). The reason proposed for this result is that social entrepreneurs are more afraid of personal failure. The same result can be identified in the research of Harding (2007), who argues that social entrepreneurs are significantly more likely to fear failure than commercial entrepreneurs. In more detail, the result of this monitor shows that 25% and 14% of social and commercial entrepreneurs, respectively, state that the fear of failure would prevent them from starting a business. Both researchers do not provide further comprehensive clarifications about why this result has appeared (Harding, 2007; Hoogendoorn, 2011).

The suggestion that social entrepreneurs have lower self-efficacy levels with regard to starting their own venture, makes it interesting to explore how social and commercial entrepreneurs navigate through the validation process differently. The belief in oneself has an influence on how individuals respond to feedback, cope with setbacks and persist in difficult situations (Hayward et al., 2010). It will be interesting to discover whether there is any influence on the time spent in different validation phases, sequence and repetitions of validation activities and how this changes over time.

2.4.2 Motivation to establish a business

Additionally, in order to differentiate between social and commercial entrepreneurs, we reflect on the reasons why entrepreneurs start their ventures. Research shows that the motivations of commercial entrepreneurs to start their venture do not cover all the motivations of social entrepreneurs (Miller et al., 2012). Although there is evidently overlap, motivations of commercial entrepreneurs are more self- or organisation related, whereas the motivations of

social entrepreneurs are more other-related (Dees, 1998). Miller et al. (2012) argue that compassion is an example of such an other-related motivator for social entrepreneurs to start their business. Compassion is defined as a prosocial motivator that encompasses an emotional connection to others who are suffering. In the same research, they propose that compassion has an influence on the cognitive decision-making processes of social entrepreneurs in two ways (Miller et al., 2012; Shepherd & Patzelt, 2018).

First, they argue that compassion leads to a more prosocial cost-benefit analysis. This entails that people that have compassion, perceive the value of the benefits of helping others higher. So in other words, compassion shapes their evaluation criteria. The result of such a prosocial cost-benefit analysis is that social entrepreneurs are likely to internalize the benefits of others (Grant, 2008; Miller et al., 2012). Second, they theorise that compassion leads to increased commitment to the business. This is because entrepreneurs identify themselves with the beneficiaries of their organisation, which makes quitting uncomfortable (Bowles & Gintis, 2002; Miller et al., 2012). As compassion causes increased commitment and a more prosocial-cost benefit analysis, they argue social entrepreneurs are more prone to several cognitive biases.

First, they argue that social entrepreneurs are less responsive to information that challenges their beliefs on and feasibility. In other words, compassion makes them prone to the confirmation and availability bias. The confirmation bias entails that people seek for evidence that is in line with their existing beliefs (Tversky & Kahneman, 1974). Whereas the availability bias is the tendency to predict something as more likely to occur on the basis of how easy it is to retrieve (Tversky & Kahneman, 1974). Second, Miller et al. (2012) argue that social entrepreneurs are more likely to show overoptimism and therefore can be overconfident in some decisions since identification with the beneficiary group might cause delays in attending the possible risks as well as that compassion alters their risk perception. As explained, people who tend to be overoptimistic are more likely to expect that things will turn out positively and

moreover, underestimate the likelihood of negative outcomes (Shepherd & Patzelt, 2018). Overoptimism is characterised as a narrow personality trait that influences mood and behaviour, which is relatively stable across situations and over time (Thomas, 2018). The arguments of Miller et al. (2012) are in line with the findings of Baron (2008) who argues that moods and emotions, which he calls affect, influence several aspects of the entrepreneur's cognition. He argues that affect has an influence on the perception of the external world, creativity, memory, coping with stress-related feelings and the interpretation of others.

It is important to recognise, not only in social entrepreneurial context cognitive biases occur frequently, in general entrepreneurs are likely to be sensitive to biases (Baron, 1999; Grégoire, Corbett, & McMullen, 2011; Thomas, 2018). During the development process of a new venture, entrepreneurs are often in positions in which they have to make complex decisions without having full knowledge of facts (Grégoire et al., 2011). Additionally, the high uncertainty, high novelty of new enterprises, time pressure and fatigue result in increased susceptibility to cognitive biases for all entrepreneurs (Baron, 1999). However, the knowledge other-related motivations, of which compassion is an important one, influence the cognitions of social entrepreneurs makes it reasonable to suggest that this might have an influence on how they navigate in the idea validation and development process. It will be interesting to explore whether there is any influence on the time spent in different validation phases, sequence and repetitions of validation activities and how this changes over time.

2.4.3 Personal values of the social entrepreneur

The last cognitive characteristic that is likely to influence the decision-making process of social entrepreneurs is build upon the notion that social enterprises are established by people that possess particular values (Zahra et al., 2009). According to her, social enterprises are established by entrepreneurs with pro-social values and are not driven by private gains. Moreover, Dacin et al. (2011) argue that social entrepreneurs are altruistic and prefer social

values over profitability. In line with this, Mair and Marti (2006) argue that social entrepreneurial motives consist of moral responsibility and altruistic values. At last, the research of Sastre-castillo, Peris-ortiz and Valle (2015) argues that social entrepreneurial behaviour is correlated to self-transcendence values, which includes the categories of universalism and benevolence. Universalism focusses on the tolerance, appreciation, and protection of the well-being of all people and nature. Underlying values of universalism are equality, wisdom, broad-minded, social justice and unity with nature (Sánchez, 2014). Benevolence refers to the degree to which a person is concerned about other people's wellbeing. Underlying values are helpfulness, loyalty, responsibility and forgiveness (Sánchez, 2014).

The social entrepreneurship literature gives the individual entrepreneur a central position in the creation and promotion of the organization's values and identity (Dacin et al., 2011; Shaw & Carter, 2007). Many times, social entrepreneurs are portrayed as 'changemakers', who have chosen to work for the community instead of for personal gains (Shaw & Carter, 2007; Thompson, Alvy, & Lees, 2000). (Pache & Santos, 2013). Therefore, the values of the founder or core management team are likely to form the basis of the organizational identity (Stevens, 2017). Organizational identity is defined as "*members' shared perceptions about their organization's central, distinctive, and enduring qualities*" (Stevens, 2017, p.1056) and determines the mission of the enterprise. Cutting corners, it answers the questions: 'Who are we'? (Foreman & Whetten, 2002). Important elements of the organizational social identity are defined by Nyssens (2006), who suggests that "decision-making power not based on capital ownership" and "a participatory nature, embedded in a network of stakeholders" as key components in the social identity of organisations. Other researchers in organizational science focus on utilitarian and normative organizational identities (Foreman & Whetten, 2002). The normative identity emphasises traditions, symbols, internalization of ideology and altruism. Whereas the utilitarian identity presents economic

rationality, maximization of profits and self-interest. Research reveals that social enterprises manifest both utilitarian and normative organizational identities, however social enterprises exhibit greater normative concepts than commercial companies do (Moss, Short, Payne, & Lumpkin, 2011; Stevens, 2017).

Organizational values, identity and mission form key cornerstones for the existence of institutional logics as they set guideline for professional behaviour (Pache & Santos, 2013). Institutional logics are defined as the patterns of practices, assumptions, values, beliefs and rules that give direction for decision making and structure cognition (Pache, 2010). In other words, they guide individuals in decisions on for instance the degree of attention on a set of issues, preferences for solutions and ready-to-wear means-end prescriptions. Consequently, it can be argued that values of the founder of the social enterprise and subsequently the organizational identity are important to understand the behaviour of the entrepreneur in the entrepreneurial journey (Mort et al., 2002; Stevens, 2017)

However, because of the dual mission, (social) entrepreneurs are likely to experience competing institutional logics (Battilana & Lee, 2014). Competing institutional logics refer to conflicting demands within an organisation. In other words, it refers to conflicting guidelines that forces entrepreneurs to devise responses (Pache & Santos, 2013). Although competing institutional logics can arise within every organisation since rarely any business is one-dimensional, these internal struggles are likely to arise in social entrepreneurial companies since they are characterised as extreme cases of hybridity (Battilana & Lee, 2014). Pache & Santos (2013) define these dilemmas in the social entrepreneurial field as the tension between the social and commercial institutional logic. Social logic is in line with the values and organizational identity of the social entrepreneurs as just explained and refers to the aim to make products or services that full fill social needs. Whereas, the commercial logic is contradictory to the values and identity of the social entrepreneur, and refers to the aim to generate an economic surplus.

For instance, as a social entrepreneur: how should profit be reinvested in the company? Should paid professionals be hired or should you hire committed volunteers? These are just some examples, but these dilemmas can arise in every element of the business model.

Several scholars investigated how individuals deal with these competing logics. Battilana and Lee (2014, p. 389) refer to this as hybrid organizing, meaning *‘the activities, structures, processes and meanings by which organizations make sense of and combine aspects of multiple organizational forms’*. On the individual level, entrepreneurs are likely to choose either of the following five reactions: ignorance, compliance, resistance, combination or compartmentalization. On an organizational level, organisations either compromise, decouple or selective decouple in reaction to competing institutional logics. We are not further outlining the different tactics, as this is only a way to show that it has an direct influence on their reasoning.

Concluding, the founders are likely to possess altruistic and normative values, that together form the organizational identity. The values, organizational identity and mission form the key cornerstone for institutional logics. Nevertheless, research shows that these institutional logics, have an influence on their decision-making processes and are likely to create dilemmas for the entrepreneurs between pursuing social impact and their commercial activities (Paché & Santos, 2013). It will be interesting to explore whether there is any influence of (competing) institutional logics on the time spent in different validation phases, sequence and repetitions of validation activities and how this changes over time.

2.5 The Customer development framework and the Lean startup method

This research aims to explore whether there are differences in the process of idea validation and development between social and commercial entrepreneurs. This is a complex process in which continuously important decisions for strategic direction have to be made (Mitchell et al., 2007). In the literature, several methodologies can be found on how to approach the entire journey of

business development (York & Danes, 2014). As we now have insights about the possible cognitive differences between social and commercial entrepreneurs, this chapter continues with providing a theoretical background about the process being studied. Two concepts are outlined and considered as underlying frameworks for the data analysis. This entails that the elements, vocabulary and evaluation criteria might be used in the data analysis in order to explore the differences between the social and commercial entrepreneurs.

The most recent and increasingly popular approaches are the Customer development approach and the Lean startup method (York & Danes, 2014). Both approaches are a reaction to the more traditional and linear development models. The ‘new’ models describe the development process of startups as an iterative and non-linear process (Blank & Dorf, 2012; Ries, 2010). In their view, the traditional way, a linear progression from the business idea to the development of the product, is constructed in such manner as if the new company knows its customers, desired product features, the market is well-defined and the competitors are understood. While in reality, few startups actually posit this information (Blank & Dorf, 2012). Moreover, they argue that traditional models make entrepreneurs vulnerable to various pitfalls since these models make no provision for moving backwards. In conclusion, they state that this leads to too much emphasis on execution, instead of on testing, learning and iteration, as well as it may lead to premature scaling activities. Both methods aim to reduce these pitfalls and are therefore rapidly adopted by university programs, entrepreneurial communities and accelerators both in the social and commercial entrepreneurial landscape (Social Impact Factory, n.d.; Starters4Communities, n.d.; York & Danes, 2014).

The Lean startup method of Ries (2010) describes an approach on how organisations can deal effectively with the dynamic and risky circumstances of starting a business. The method describes the process of using short and frequent cycles for business model testing in order to minimize expenditures before the value creation for the customer has been validated

(Ries, 2010). Within this process, entrepreneurs are likely to make (several) strategic changes: pivots (Ries, 2010). A pivot is defined as “*a structured course correction designed to test a new fundamental hypothesis about the product, strategy, and engine of growth.*” (Ries, 2010, p.147). They occur in various business model elements such as value capture pivot, a channel pivot, business architecture pivot and customer need pivot (Ries, 2010). Additionally, Ries (2010) introduced the concept of the Minimum Viable Product (MVP). An MVP is a prototype of the future product that contains the most essential features, which is exposed to the customer in an early stage. The development of an MVP has two advantages (Blank & Dorf, 2012). First, this product gives insights into the user preferences and habits of the customers in a very early stage and therefore, maximizes customer learning. Second, an MVP can be used as a source to attract early-adopters as well as investors. In conclusion, using the Lean startup method helps startups to benefit from continuous interactions with customers in the earliest stages and therefore have a better chance of success without spending a large amount of investment.

In line with the Lean Startup method, Blank and Dorf (2012) developed The Customer development process (figure 1) to provide a structured framework with the aim to bring a product to the market in a relatively short term compared to traditional ways of product development (Blank & Dorf, 2012). The usage of the Customer development framework enables entrepreneurs to simultaneously explore the market as well as possible product features (Blank & Dorf, 2012). It consists of four phases: Customer discovery, Customer validation, Customer creation and Company building. The present study is focussed on the differences between social and commercial entrepreneurs while they go through the customer development phases (figure 1). An explanation of the different phases is given in the next section. The last phase, Company building, is outside the scope of this research since the investigated companies are too premature.

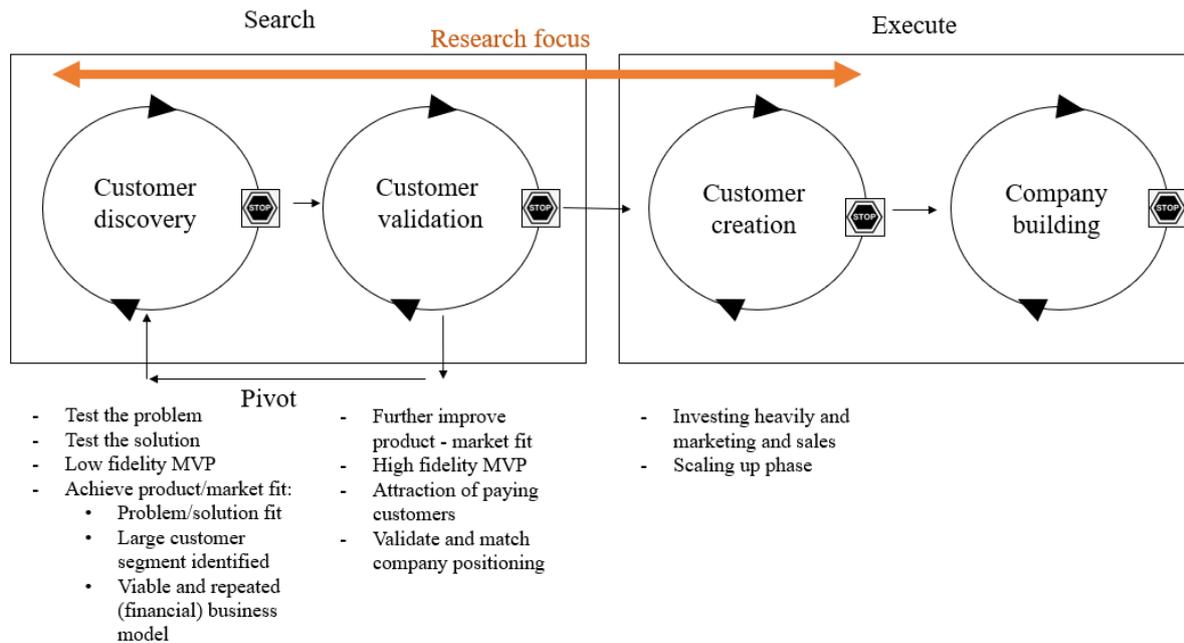


Figure 1 Customer Development Process (Blank & Dorf, 2012)

Customer discovery

The aim of the Customer discovery phase is to turn the founder's vision into business model hypotheses that should be tested before spending large amounts of money in product development. The Customer discovery phase is a way to attract facts about the future customer and the market (Blank & Dorf, 2012). The practical aim of this stage is to get to know the customer and identify their characteristics and align them with the product (Blank & Dorf, 2012). During the Customer discovery phase, the company can develop a low-fidelity MVP. The aim of a low-fidelity MVP is to verify the problem/solution fit. A fit between problem and solution is established when the new value proposition resolves the ‘customer problem or need’ in a compelling way (Blank & Dorf, 2012).

The Customer discovery phase approaches the end when a product/market fit is verified on the basis of the following three criteria (Blank & Dorf, 2012). First, the company has established a verified problem/solution fit. Second, the company has identified a large customer segment. At last, the company has gathered financial data from the market and its customers. A product/market fit is established when the intended revenue and pricing model are matched

up with both the companies and customer's needs. In other words, the company has envisioned and tested the way they are going to make money.

Customer validation

The aim of the Customer validation phase is to validate the strength of the product/market fit among different segments of the company. It describes the process of bringing the product to the market on a larger scale and adapting to various forms of internal, external, qualitative and quantitative feedback (Blank & Dorf, 2012). It starts with attracting early evangelists who are actually paying for the product, application, service or website. The Customer validation phase can also be described as an iterative process in which continuous deployment and product features refinements are made since actual paying customers are using the product. These first customers can give feedback on the high-fidelity MVP. Where the low-fidelity MVP is a way to attract and test customer information about the problem-solution fit, the high-fidelity MVP is a more polished and functional version of the product. The aim of the high-fidelity MVP is to prove measurable purchase intent among customers, further improve the product, test acquisition and activation tactics and test and observe customer behaviour. Besides this, the Customer validation phase requires entrepreneurs to match and validate the product positioning with the (different) market types. The Customer validation phase is approaching its end when a repeatable sales process that yields a profitable business model is clearly envisioned.

Customer creation

The customer creation phase is also known as the 'scaling-up' phase. Since the business model is validated, the company can accelerate by investing in marketing and sales. It builds on the company's initial sales success. Customer creation activities vary between different market types (Blank & Dorf, 2012). The aim of this phase is to create end-user demand and to drive customers into the sales channel (Blank & Dorf, 2012).

2.6 Social entrepreneurial challenges in the idea validation and development process

Although it is argued that the individual is crucial in the idea validation and development process and emphasis has been put on the individual level differences of social and commercial entrepreneurs, it is important to indicate that there might be organisational or sector differences that also have an influence on the process. So before we continue with the methodology and analysis, two entrepreneurial challenges are outlined that might arise in the venture creation process because of the double mission of the social entrepreneurs (Austin et al., 2006). These challenges are likely to appear in the data.

Resource attraction and decisions

When an entrepreneur has made the decision to start a company, many times he or she will (eventually) search for external investment to start and further develop the company. The dual nature of the social entrepreneur has an influence on both the acquisition as well as the allocation of resources. In general, social entrepreneurs face more difficulties than commercial entrepreneurs concerning resource mobilization since they lack financial capabilities (Austin et al., 2006). Due to the ambiguity of the social mission, social entrepreneurs face difficulties with accurately valuing their net present value and therefore they lack the possibility to guarantee a substantial return on investment (Renko, 2013). For this reason, social entrepreneurs are less likely to get funding from formal venture capital (Austin et al., 2006; Bacq, Hartog, & Hoogendoorn, 2016; Certo & Miller, 2008). Consequently, social entrepreneurs rely more on contributions, foundation grants, user fees, government payments or the three FFF's (family, friends and Fools) (Austin et al., 2006). The combination of scarce resources and the double mission result in challenges for the management team during all the four phases of the idea validation and development process (Moizer & Tracey, 2010; Phillips & Tracey, 2007).

Management of stakeholders expectations

As a result of the former topic, social entrepreneurial enterprises have a more heterogeneous set of stakeholders than commercial entrepreneurs (Austin et al., 2006; Shaw & Carter, 2007).

The number of stakeholders varies per organisation, however, examples can be donors, employees, volunteers, public authorities. These stakeholders expectations vary hugely from focussing on the social aspect only, towards an emphasis on the commercial aspects of the organization (Costanzo, Vurro, Foster, & Servato, 2014). Additionally, since the goal of a social enterprise is to create value for a particular social constituency, it has to ensure that they meet their views and expectations (Tracey, Phillips, & Jarvis, 2010). When a company fails to put the needs of the social target group central to its strategy, it will fail to create social value. In other words, where commercial entrepreneurs mostly operate in the interest of their own firm, social entrepreneurs constantly have to consider that they operate for the interest of the group they want to contribute to. The involvement of stakeholders may make the decision-making process more complex and consequently slower (Tracey et al., 2010).

2.7 Conclusion theoretical framework

The goal of this study is to empirically address the following question: How does the idea validation process of social and commercial entrepreneurs differ when they develop and validate their business idea? As researchers argue that the individual is crucial in the venture creation process, this study suggests that differences in the process might appear due to specific cognitive characteristics of social versus commercial entrepreneurs.

First, research reveals that social entrepreneurs might have lower levels of self-confidence in the ability to start their business. Second, it is suggested that social entrepreneurs have different motives to start their business. Social entrepreneurs have more other-centred motives, whereas commercial entrepreneurs have more self- or organisation centred motives. The different motives can have an influence on evaluation mechanisms as well as on the determinism of the entrepreneurs (Miller et al., 2012). Third, it is argued that social entrepreneurs possess altruistic values that form cornerstones for institutional logics. However,

these institutional logics are likely to create dilemmas for the entrepreneurs between pursuing social impact and their commercial activities during the entire entrepreneurial process.

Subsequently, the Customer development process of Blank and Dorf (2012) and the principles of the Lean startup method of Ries (2010) have been introduced as they form an underlying framework for the process being studied in this research. This entails that vocabulary, elements and phases are used in order to explain and identify the differences in the process. At last, two social entrepreneurial challenges are described that are likely to appear in the data.

3. METHODOLOGY

3.1 Research strategy

The aim of this research is to make a comparison on how social and commercial entrepreneurs navigate through the idea validation and development process. In order to do so, an inductive, comparative multiple case study design is chosen to formulate an answer to the research question (Eisenhardt, 1989a; Yin, 2014). A case study is a rich and empirical description of phenomena, processes or particular instance (Eisenhardt & Graebner, 2007), in which the unit of analysis is the main entity being studied in the research (Yin, 2014). In the present study, the unit of analysis is the process of idea validation and development. The outcome, the process research, is concerned with getting an initial understanding of how things evolve over time and why they involve this way (Eisenhardt, 1989a; Langley, 1999). The objective of this research is to propose and provide generalisable patterns across the idea validation processes of social versus commercial entrepreneurs.

For the researcher it is essential to go over the data and analyse it with an open mind, meaning that the data is explored without assumptions of what the outcome might be. The topics in the theoretical framework are only used as a direction in the case analysis. The advantage of doing inductive case study research is that we are not limited to the initial theoretical framework and that other aspects might appear to have an influence on differences in the process (Eisenhardt, 1989b), or that no differences at all are identified. Inevitable, the researcher is naturally influenced by the content and scope of the theoretical framework, thus a reasonable amount of bias cannot be prevented. Additionally, the reality shows that people can be poor information processors since they can be influenced by the vividness of cases (Nisbett & Ross, 1980), can be ignorant towards basic statistical properties or take conclusions on limited data sources (Tversky & Kahneman, 1974). However, being aware of these biases helps to keep this influence as low as possible (Gioia, Corley, & Hamilton, 2012).

In order to analyse the data, the inductive case study approach of Eisenhardt (1989) is used as a framework to structure the process. This design is appropriate when the research field lacks extensive exploration or has the potential to yield various conclusions (Eisenhardt, 1989a). The analysis is divided into within-case analysis and cross-case analysis. By combining these two research tactics, biases are prevented (Eisenhardt, 1989). The aim of the within-case analysis is to gain familiarity with the data and generate preliminary thoughts about the possible direction for the cross-case analysis (Eisenhardt, 1989a). This is an essential part of the analysis since it helps to structure and process the large volume of data. The visual mapping strategy of Langley (1999) is used to compromise the data into individual process models. These models can be seen as an intermediary step from raw data to a more conceptualisation of the process (Langley, 1999)

Subsequently, the aim of the cross-case analysis is to identify the similarities and differences across the two different case groups (Eisenhardt, 1989). For each difference, a potential pattern is suggested which could be interesting for further research. Additionally, the differences section encompasses a discussion about the potential factors that substantiate or disregard the proposed patterns by looking for an explanation in the data and linking it to the findings of the theoretical framework. The cross-case analysis is concluded with a potentially generalisable process model that gives an initial understanding of the differences in how social and commercial entrepreneurs navigate in the development and validation process.

3.2 Case development

Six cases are constructed, which are polarised in social case groups and commercial case groups. One of the main challenges for case construction is gathering data that prevent biases (Eisenhardt & Graebner, 2007). Therefore, one single case is constructed by the means of three interviews with employees of the same company. The interviews are conducted using a semi-structured interview protocol (Appendix 1). By interviewing several employees in the same

company, information is gathered from different perspectives and therefore limits biases (Eisenhardt, 1989a). Theoretical sampling is used to select organisations that have comparable characteristic (Eisenhardt, 1989a). The aim of theoretical sampling is to select cases that are likely to represent the emerging theory (Eisenhardt, 1989a). Thoughtful case selection is essential to control for extraneous variation, as well as it helps to define limits to generalise the findings (Eisenhardt, 1989a). Therefore, companies are purposefully selected that meet the following requirements.

First, the organisation should be easily distinguished as either a social or commercial company. The social cases consist of businesses which have developed a business model that create solutions to persistent environmental or social problems and therefore pursue a double bottom mission. Whereas a commercial business is defined in this research as organisations that aim to make a profit. In order to assess to which group a business belongs, the companies websites are examined. The three social businesses used in this research explicitly state on their website that they are a social enterprise.

Second, the business of the entrepreneur needs to be older than two years, but younger than five years. This entails that all firms are relatively young and have entered at least the Customer validation phase (figure 1). This means that the business should have a working product that is actually available on the public market. This requirement makes sure that companies can elaborate and reflect on their developments, however, are not too mature so that they cannot retrieve the situation and judgements of that time.

Third, the business model of the organisations should be built around technological assets. This requirement is set for three reasons. First, technological assets such as applications, platforms or software's require upfront investments. By setting this requirement, it is made sure that the commercial and social organisations started on a comparable investment entry-level. Second, for this reason, the companies have all developed an MVP. At last, this condition makes

the groups comparable in terms of scaling possibilities. All the companies have a potential market that reaches at least the size of the Netherlands.

The last requirement for the case selection is that the entrepreneur has gathered a team of colleagues around him, however, the team does not exceed more than 20 employees. In line with this, per case, at least one interview has to be conducted with the founder of the business.

3.3 Coding procedure

The coding process can be characterised as iterative, meaning that the researcher reviews the transcripts several times. Additionally, open coding is used to perform the analysis (Strauss & Corbin, 1994). Open coding entails that for every piece of text that is marked, a name is created that covers the topic of the selected quote (Strauss & Corbin, 1994). It is important to mention that the names for the quotes are carefully selected, however, are not fixed and can change during the entire process (Strauss & Corbin, 1994). The advantage of open coding procedure is that an open view towards the data is maintained, which entails that detailed descriptions can come up as well as all options for pattern generation are held open. Moreover, codes were created on the basis of the touchpoints of the framework of Blank and Dorf (2012) (Figure 1), Ries (2010) and the cognitive characteristics as described in the theoretical framework. By using a line-by-line analysis, codes are created covering single words, towards entire paragraphs. An overview of the used categories and codes can be found in Appendix 2.

4. DATA ANALYSIS

4.1 Data generation

Over a timeframe of approximately one month, sixteen semi-structured interviews have been conducted in order to gather information to construct six case descriptions. The participating organisations are anonymized and therefore renamed (COM = commercial case; SOC = social case). All companies were established in the Netherlands and have met the case requirements. Two exceptions to the requirements result in the fact that sixteen instead of eighteen interviews were held. First, the case description of SOC1 is built upon the information of only two interviews (with the founder and the managing partner). Second, all interviews were held individually, except for one of the interviews at SOC2. Two founders were interviewed simultaneously.

In total, seventeen people are spoken to during the interviews. All interviews were recorded and transcribed. The duration of the interviews varied between 22 minutes to 1 hour and 15 minutes. Fifteen out of the sixteen interviews were held in person. Due to practical difficulties, one interview was held through Skype. The interview protocol has not been changed during the data gathering process. However, the usage of a semi-structured interview protocol enabled to focus on different aspects per interview. The information of the previous interviews with colleagues, therefore, has functioned as a start-off point for the next interviews. Moreover, as data saturation on a specific topic was achieved, the semi-structured interview method enabled to focus on different information. Table 2 reports the organisational and descriptive facts of each case.

<i>Company description</i>	<i>Founded in</i>	<i>Number of current employs</i>	<i>Number of people in the founding team</i>	<i>Number of interviews</i>	<i>Function of interviewees</i>
SOC1 SOC1 provided a double-sided platform that enabled African developers to connect with Dutch organisations to address their software development needs. The profit is invested in IT education in Uganda, Nigeria and Egypt.	Sept 2015	17	2	3	Founder Partner – Co-founder
SOC2 SOC2 developed an application that helps cancer patients to cope with mental health and fatigue problems. Eventual profits will be invested in cancer research.	May 2017	7	3	2	Founder 1 Founder 2 Head of Products
SOC3 SOC 3 provides a social network in the form of an application for people in the age between 50-65, to find companionship and activities in a modern and easy way.	April 2016	8	2	3	Founder Community manager Social media manager
COM1 COM1 developed an application that is used as a communication platform between parents and teachers in primary education.	Jan 2017	17	4	3	Founder UX developer Community
COM2 COM2 developed a double-sided platform that enables pre-order-payment service for commuters and travellers that can pre-order food and drinks to pick up their order at a scheduled time at the train station.	Oct 2016	6	2	3	Founder Marketing manager Community manager
COM3 COM3 developed an online training software that enables business professionals in four sectors (healthcare, education, commercial companies and government) to practice communication skills.	Aug 2016	8	2	3	Founder Project/account manager Product manager

Table 2 Data description

4.2 Within-case analysis

In order to gain familiarity with each case and generate preliminary thoughts about the possible direction for the cross-case analysis, separate case write-ups were constructed (Eisenhardt, 1989a). An excel file for personal use was created to summarize all the key topics discussed in each interview. This file highlighted essential moments in the development and validation process such as pivots, activities, challenges and was used to structure chronological information. Additionally, AtlasTI, a software that is designed to code and analyse qualitative studies, was used to analyse the transcripts.

The elements in the framework of Blank and Dorf (2012), discussed in the theoretical framework (Figure 1), form the basis for the structure of the write-ups in this section. Each write-up starts with a short introduction to the start of the company so that the reader is provided with information on when, in what context and with which purpose the business was developed. Subsequently, all the topics in Table 3 will be discussed, by giving a description of how the company moved along in this process. Quotes are used to support the statements. Additionally, every write-up ends with a visualisation of the validation and development over time. The within-cases analysis ends with an overview table of the different cases.

Addressed topics within-case analysis:

- a. Start company
- b. Customer discovery phase
 - Achieving Problem solution/fit
 - Low-fidelity MVP
 - Achieving product/market fit
- c. Customer validation phase
 - High-fidelity MVP
 - Customer feedback
 - Product improvement
- d. Customer creation phase
- e. Timeline

Table 3 Topics within-case analysis

4.2.1 Case write-up SOCI

a. Start company

SOC1 was built by a former entrepreneur, who found a co-founder at the beginning of 2015.

The aim was to create a double-sided platform that enables African developers to connect with Dutch organisations to address their software development needs. The idea was initiated because the founder observed the scarcity in the IT development market. Furthermore, in the past, he worked for an NGO asserting human rights. It is important to note that the founder has many years of experience and knowledge of idea validation within social enterprises and frequently mentions the importance of the Lean startup method.

SOC1-I1: “Before I elaborate on this with regard to SOCI, I think it is good to mention my background. (...) I developed and teach a workshop around this, (...) give lectures on University, and coach other social enterprises on how to use the Lean startup method on behalf of Social Enterprise NL. Just know, that this is something, I have knowledge in and a clear vision towards, and obviously, have taken this experience into the validation of SOCI.”

b. Customer discovery phase

SOC1 is a double-sided platform, which entails that hypotheses needed to be tested on both sides on the platform. To test the supply side of the platform, the co-founder moved to Afrika for approximately eight months in order to test whether they could find enough skilled developers and to coordinate the process from there. To test the demand side of the platform, a low-fidelity MVP was created.

SOC1-I1: “I went to a start-up festival with nothing more than a PowerPoint presentation, not even a website. There I talked to many people and I managed to contract fifteen small development tasks. So that was where it really started, and from there we continued iteratively.”

During the first year in 2016, two gradual changes occurred in the business model. First, instead of focussing on short and relatively easy projects, they started focussing on building long term relationships and doing large projects (achieving problem/solution fit). Second, they abandoned the double-sided platform and instead started functioning as project managers between the developers and organisations (achieving both problem/solution fit and product/market fit). The two gradual changes have had a major influence on the business model for the organisation (revenue model, sales and marketing strategy, hiring procedures), so are considered as pivots. Because of the pivots, a sustainable business model was achieved.

SOC1-I2 “Now we are doing the larger projects, the smaller ones are actually not that interesting with regard to acquisition and marketing costs. Since they are pretty high with software, it is hard to earn it back. So now our business model is focussed on seconding developers. In the beginning, we did not see that this demand exists actually. But by doing we learned what the customer actually desires.”

c. Customer validation phase

After the two pivots, a product/market fit was achieved. This implied that they only launched a very basic form of a multi-sided platform, interrupted the development of a high-fidelity MVP and continued focusing on seconding developers. The main product improvements concern aligning, structuring and standardising the seconding process. This was all learning by doing.

SOC1-I1: “Most of our decisions are gradual. We do many experiments, which also fail a lot.”

Additionally, they do this by tracking several parameters.

SOC1-I2 “We constantly monitor several parameters in the company. For instance billable hours (...), sales and marketing parameters. Also, there are also more soft parameters, such as how happy our customers, and our employees, are every two weeks.

Additionally, we talk to customers, since we are the project managers. So it's both a combination of qualitative and quantitative monitoring actually."

d. Customer creation phase

Since, the beginning of 2017 the founders perceive the business model as validated, which resulted in locating and hiring a full-time manager in Afrika.

SOC1-II: *"Well, let's say, we played on a bit for 1,5 year. It was approximately January 2017, that I really thought, I think the idea and the operation method is validated now. From that moment, we were mostly doing small improvements. I recognised the error marge towards customers also decreased (...). Their expectations of our service increased."*

Since then they expanded their operations to Nigeria and Egypt. Additionally, they are piloting with giving IT education on behalf of the company (in cooperation with local partners) in Afrika. The developer's group has increased to over 300 different developers. In 2019, the founder hired an operational director to focus on professionalization and scaling up.

SOC1-II: *"Actually, the fun part is over: the company building! We definitely entered the growth modus by now."*

e. Timeline

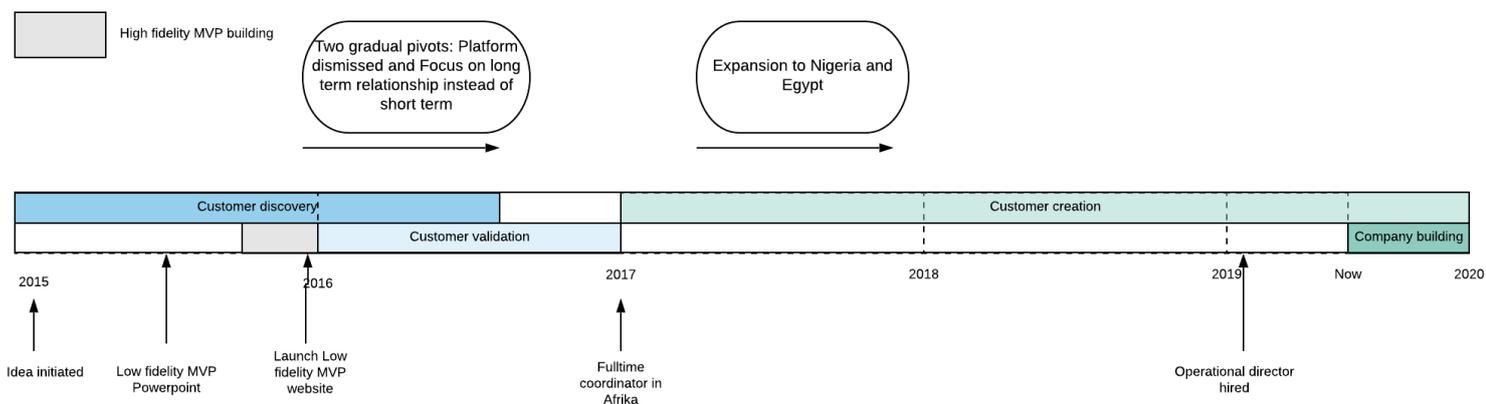


Figure 2 Timeline SOC1

4.2.2 Case write-up SOC2

a. Start company

From their professional and academic background in mental health support for cancer patients, the two founders of SOC2 recognised the new business idea, an application to help cancer patients to cope with mental and physical problems, back in 2012. In 2015, they started working on the idea of the frequency of once a week. During this time, they talked to many people in their network to find investors and receive feedback. In May 2017, they started working on the project on a full-time base, hired employees and initiated the start of building the application.

The Customer discovery and Customer validation phase cannot be exactly differentiated in the data of SOC2. The different activities within these phases do not follow up with each other, but rather occur simultaneously. In order to construe a coherent and easy-to-follow description of the process, the Customer discovery phase and Customer validation phase are described simultaneously, following a chronological story.

b. Customer discovery phase and Customer validation phase

In order to receive initial customer information, SOC2 has created strong relationships with their customers. They established this by organising face-to-face focus groups, communication through Facebook groups and conducting evaluation surveys.

SOC2-II: “ I think that is where is our strength. That is one of our unique selling points and very valuable for us. We have a really actively involved user base. In the end, we started this for them. And they are the best to say what they are in need for.”

SOC2 did not develop a low-fidelity MVP, however, did a so-called ‘soft-launch’ of their high-fidelity MVP with a selected group of customers a month before the planned release. The soft-launch of their high-fidelity MVP was to receive feedback on how to improve the application in terms of practical feasibility

The development of the high-fidelity MVP caused two challenges. First, it caused friction within the founding team on when to launch the product. This resulted in a breach of contract with one of the partners.

SOC2-I2: “He was a real businessman. He had the vision: Whether you put cars, socks or an application on the market, even when it is not completely perfect at some point you have to do it and you will see. And we were more careful in that extent. (...) We wanted to be sure that the basis and content were really good. Something that would be received well.”

Second, they outsourced the development of their high-fidelity MVP. The cooperation with the development agency caused tension. They breached the contract and start working with a different agency. Because of this, the launch of the product got postponed for three months.

After the launch, the growth of the download rate stayed away. In order to stimulate the download rate, they investigated ways to improve the product. For instance, they increased the onboarding efficiency as well as they made sure that people could use the application anonymously. However, it appeared that the customers did not want to pay for the application. The founders did not test the willingness to pay for the application with their customers before the development and launch of the product.

SOC2-I2: “ Our assumption was: It is easy to download, you pay €30 euro’s and you will feel 100 times better and you are less fatigue. That is something people want to pay for, compare it to meditation apps like Headspace for instance. However, in reality, it appears it is not. It staggers around the perception of an application. That should be free. It is about health and cancer. ‘I am sick already, why should I pay? This should be something that is covered by insurance.’”

The preserved the customer-paid business model for approximately a year. After then, they pivoted quickly, it was an overnight decision, they decided to offer the application free. This is

not a financially sustainable business model. So since the beginning of 2019, they are investigating ways of getting the application funded. Because of the price reduction to zero, however, the download rate increased exponentially from <10 to 10.000 users. Additionally, the application was tested by a research team at the University of Groningen, that revealed positive health outcomes of using the app. Because of this, it can be argued that the problem/solution fit is achieved. However, the product/market fit has not been achieved yet.

SOC2-I2: *“We have found something that works and is scalable. Our method and application really help people. That can also be backed up with the scientific study of the University of Groningen. The research shows that people are significantly less tired after using the application for 12 weeks. However, we need approximately 1 to 2 years to really work on the business model. That’s what we tell investors too.”*

d. Customer creation phase

SOC2 did not enter this stage yet.

e. Timeline

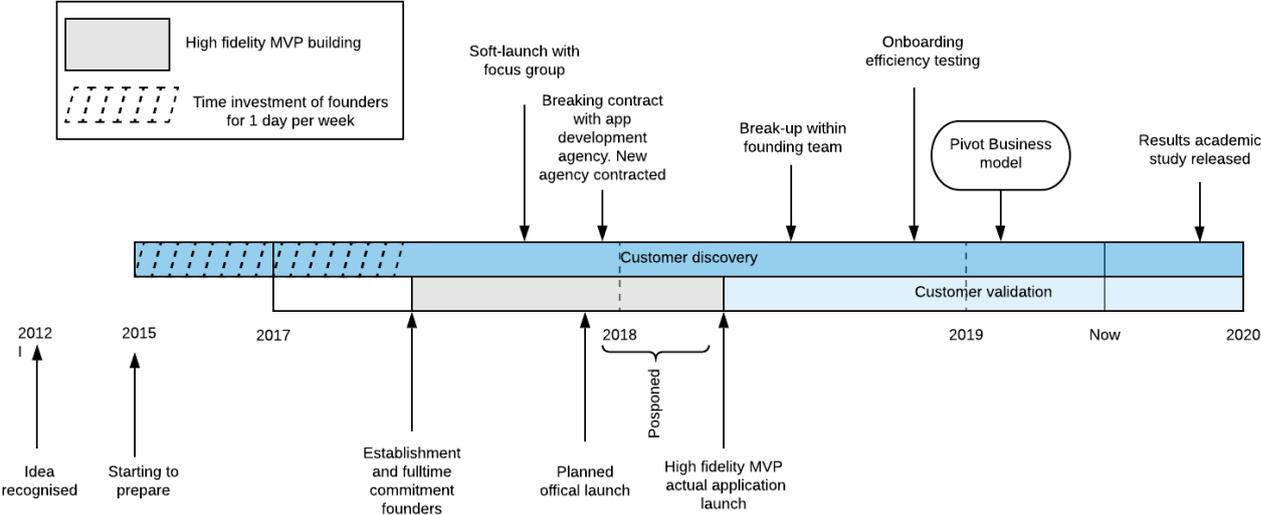


Figure 3 Timeline SOC2

4.2.3 Case write-up SOC3

a. Start company

The idea of SOC3, a social network application for people in the age between 50-65, to find companionship and activities in a modern and easy way, was recognised in 2014 when one of the founders was searching for a solution to her father's loneliness. In 2015, besides their fulltime jobs, the two founders participated in McKenzie's New Venture programme. At the beginning of 2016, SOC3 was officially established.

b. Customer discovery phase

In 2015, the founders participated in many local pitch matches. With the money, they developed a low-fidelity MVP by which the problem/solution fit was tested.

SOC3-I2: "There we won our first few thousands of euros, of which we developed a very basic application. Actually it did not make sense at all, however, it did connected people, so it worked for its purpose."

Additionally, they send out many questionnaires and created focus groups to talk with the community. On the basis of this feedback, SOC2 has pivoted three times. First, in order to improve the problem/solution fit, they rebuild the application towards a more community-like platform since the users declared that the product looked too much as a veiled dating application. Second, they changed the business model two times in an attempt to achieve the product/market fit. In the first stages of the business, the application was free, following up by a freemium/premium business model. This pricing model was not tested with the customer segment and failed to attract enough premium users. Currently, they are preparing their customers for an annual payment business model. The price of the new annual subscription has been established by a large survey among users. However, it is important to note that also the third business model is not financially sustainable in the future.

SOC3-I1: "I really hope that this new business model is going to work. If only because we have some annual income, that makes us less depended on external investment. We

have looked into subsidies etcetera however that is such a time-consuming process. At some point, the money needs to be collected somewhere.”

c. Customer validation phase

The development of the high-fidelity MVP was outsourced to China. This cooperation caused challenges and they switched agencies, which delayed the development. In the two years that followed, they continuously experienced difficulties with outsourcing the application abroad because of the language gap, time difference as well as ineffective communication due to a lack of technical experience within the team of SOC3. Therefore, since the beginning of 2019 they hired two developers and since then working on building a new version of the application. Additionally, in order to improve the customer/solution fit, they hired a community manager. The community manager is someone from the target group, who works part-time for SOC3.

SOC3-I2: “I am the only grandfather here, between all the youngsters. I can protect them from making decisions that would not be in line with the way of thinking of our age group (...). I will tell them what is going on in the community, they are not coming to the activities since they are not in their fifties.”

d. Customer creation phase

SOC3 did not enter this stage yet.

e. Timeline

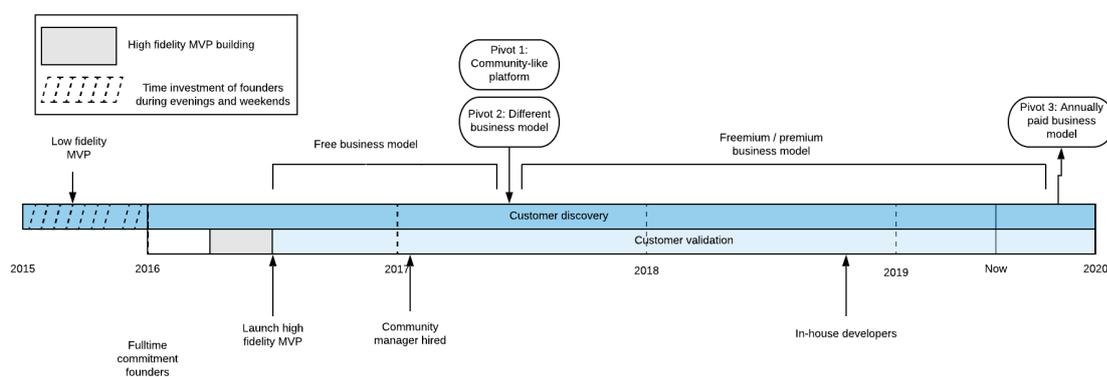


Figure 4 Timeline SOC3

4.4.4 Case write-up COM1

a. Start company

In 2017, COM1 was initiated by combining the best practices of two companies by four founders. Two had worked together on setting up a company that provides services for primary education to develop school websites. The other two had set up an e-mail and text communication platform for primary schools. Together, they developed a new integrated communication platform, website and application that connects parents and primary school teachers.

COM1-I3: *“Less or more in 2016, our conversations started. They had a pretty, integrated product with a Facebook-look, a lot more modern. They were young boys with new ideas. (...) But we had a personal match.”*

COM1-I1: *“We have been looking if we could reuse components, but it was like bringing together Paint and Word. So, in the end, we created an entirely new company and product proposition, to prevent the complexity of merging systems together.”*

b. Customer discovery

With their experience in this sector in mind, they started from scratch with thinking what features the product should have. They build a low-fidelity MVP in order to validate the set of features (achieving the problem/solution fit) and the pricing assumptions (achieving market/solution fit).

COM1-I2: *“We organised feedback sessions with people for ICT education systems, education consultants, customers. We did focus groups to show them our first product. (...) However, at some point, look, in the education sector, everything needs to be connected, all the tools and learning methodologies need to be connected.”*

c. Customer validation

After gathering feedback, they build a high-fidelity MVP. The high-fidelity MVP was built by in-house developers.

COM1-I2 “At some point, there is a moment you think: We are going to make the most awesome product. But in reality, we had too less time and too less money. So in the end, we rushed into it. That is just how it is. We chose to leave many features behind. So that we could start working.”

It appeared that leaving behind some of the features, was not always a good call. They approximately spend two years on improving the product (increasing the problem/solution fit).

COM1-I1: “We mostly did that ¹from our own experience, in hindsight we should have listened to the customer more.”

d. Customer creation

Although it took them approximately two years to optimise the product, they started selling new contracts and inviting new customers to the platform after half a year after the launch of the product. This resulted in technical issues with regard to scaling the platform.

COM1-I1 “In the beginning, we only had 50 schools. However, as soon as we invited more schools a lot of problems arose... Lucky, we are done with that. The child-diseases have been tackled. However, that was a tough job, it was an unorganised situation, in which you are constantly putting out fires.”

COM1-I2 “ I think we were on the edge of scaling up to soon. When eight out of ten schools come back to you stating that things do not work... Well then you have to consider if we were ready for it back then.”

Currently, COM1 is conducting market research to orientate to which country they are going to expand abroad.

¹ Interviewee talks about eliminating features from the high-fidelity MVP

e. Timeline

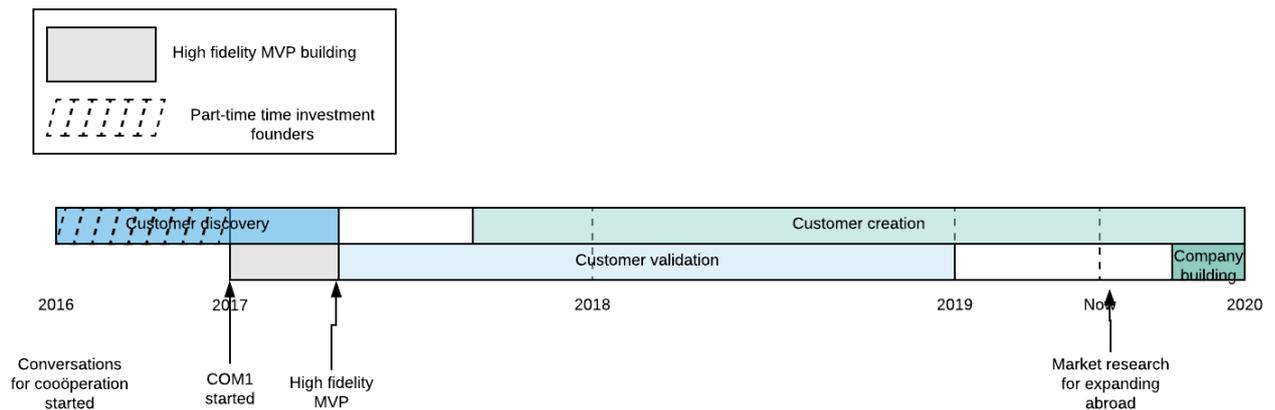


Figure 5 Timeline COM1

4.4.5 Case write-up COM2

a. Start company

During a university course in 2016, the founder recognised the idea for COM2. COM2 is a double-sided platform that enables pre-order-payment service for commuters and travellers. Travellers can pre-order food and drinks on an application, so that it can be picked up at a scheduled time at the food counters at the train station.

b. Customer discovery phase

COM2 took approximately ten months to investigate different aspects of the idea. Three main validation activities were conducted simultaneously in the Customer discovery phase. First, they conducted a large quantitative customer survey in order to attract the customer's preferences (achieving problem/solution fit).

COM2-I2: *“The aim of the survey was to research whether travellers would use this. It was a very extensive questionnaire and in the end, 1600 people participated.”*

Second, they actively approached many professionals from different professional fields to brainstorm with them about their idea, market trends, finance, revenue models and entrepreneurship in general (achieving product/market fit).

COM2-I2: *“During that period, we talked to an enormous amount of people. (...). After a conversation, we always asked, could you introduce us to two or three other people. That went on and on. If they see you really want to pursue this idea, they will help you. I think we had roughly 100 conversations from head-hunters, entrepreneurs to CEO’s.”*

Third, a student developed a prototype in order to test their assumptions as well as it was used to attract investors.

COM2-I2: *“Parallel to the market research, we developed a prototype. We have had a lot of advantage of that. We created different videos on how it would work in practice, also a variant that would be used in the food counters.”*

After receiving investment, they made the prototype usage ready, they ran two pilot projects.

COM2-I2: *“ The first with a group of 250 people. That was mainly testing the MVP, optimising it. And the second pilot, was mainly to test whether we would be able to go live.”*

c. Customer validation phase

COM2 officially launched its application in October 2017. Since the launch, they have been optimizing the devices, software and service. The main improvements were from a technical nature, since they work, because of financial reasons, with devices from China.

COM2-I1: *“Well, our devices are just not foolproof!”*

They gather customer feedback both on a quantitative and qualitative way. Customers were asked to fill out an information form after their order. Moreover, they organised focus groups in order to receive face-to-face feedback about the entire order process. The interviewees argue that the main child diseases within the product have been dissolved, however, should be further optimised before it can scale up.

COM2-I2: *“We do not invest much in marketing at the moment. We are not completely satisfied with the platform yet. In general, the technical systems are stable now. But not the entire Netherlands should start using COM2 yet.”*

In May 2019, COM2 handles around 200 orders every day. The order can be placed at four different stations in the Netherlands. There is a contract with the Nederlandse Spoorwegen (NS) in the pipeline for the end of 2019, to scale the operations to nineteen stations in the Netherlands.

d. Customer creation phase

COM2 did not enter this stage yet

e. Timeline

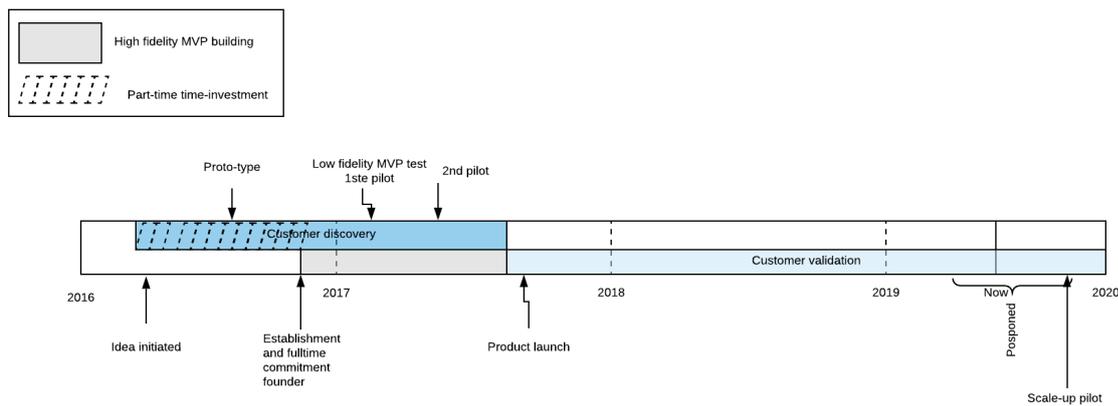


Figure 6 Timeline COM2

4.4.6 Case write-up COM3

a. Start company

An online training software that enables business professionals to practice communication skills, was developed by the University of Utrecht to teach large groups of medical students communication skills. The two founders of COM3 were involved in the development and pilot on the university. In August 2016, they decided to use the technology of the software to bring it to the market. They developed conversation scenario's for four sectors: commercial sector, medical sector, education sector and the government.

b. Customer discovery phase

In order to discover the customer's preferences, no low-fidelity MVP was created since the founders were able to observe the operation of the software during the university project. So they developed a high-fidelity MVP straight away to attract paying customers. The problem/solution fit was achieved by gathering mostly qualitative research.

COM3-I2 “ *For every scenario we create, I sit next to the customer. I want to have an open conversation, create circumstances in which someone does not feel a burden to express criticism. Cause that is what you want.* ”

It is a rational choice to not specify in a particular customer segment yet. The founders state that all the sectors have substantial overlap and as well as interesting differences, therefore diversifying still increases their learning abilities.

COM3-I3 “ *Actually, we are in a phase, in which we currently learn about where our expertise suits the best.* ”

In other words, they achieved the problem/solution fit during their first years, however, did not choose a particular customer segment yet. Moreover, they did not make a clear choice of what revenue model they will pursue. They have different pricing models, which they are currently testing by selling pilot projects to customers.

COM3-I1 “ *We have encountered a couple of times already, that we had sold a pilot to a customer, and that next year the customer asks for another pilot. We think: A pilot project is to prove what we are doing. What does the pilot need to prove the second time? And actually, we receive the answer: the software has proved itself however there is just no money.* ”

In other words, in May 2019, they are still testing their revenue model in different segments and therefore have not achieved a product/market fit. At that time, their income is mostly derived from creating personalised scenario’s. Their vision is, when the customer base has increased, to move to a more licencing-based revenue model. The current operations make the company self-sufficient.

COM3-I3: “ *Currently, it is about converting our story to revenue models. I think there are countless models possible.* ”

c. Customer validation phase

The high-fidelity MVP was developed as soon as stay established COM3. which was already used to attract paid customers. Since then, they validated and improved the quality of their product in three large software updates.

COM3-I2: *“Every week we update the system, we continuously are working on that. Sometimes on the requests of the founder, sometimes from customers. There is always a reason why we want to change something. More beautiful animation of the characters, for instance, more scenario’s, more functions. But also the procedure and methodology get sharper. The basis is settled, however, the methodology gets better and better.”*

d. Customer creation phase

The company has not entered this stage yet.

e. Timeline

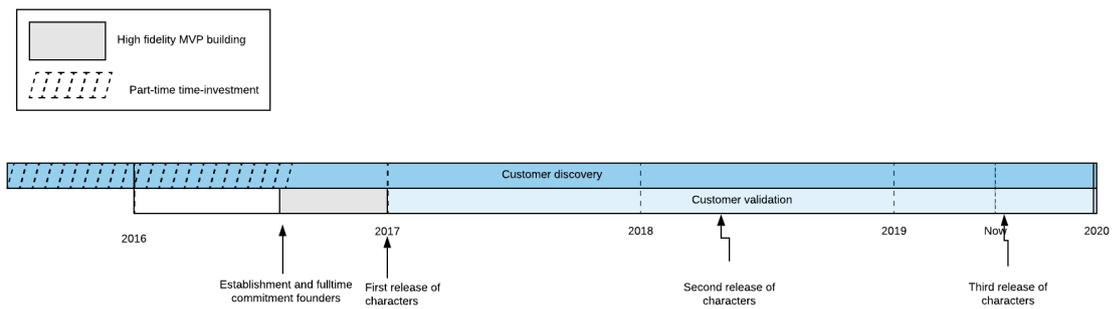


Figure 7 Timeline COM3

4.2.7 Overview of within-case analysis*

<i>Case</i>	<i>Part-time time¹</i>	<i>Number of pivots</i>	<i>Time MVP²</i>	<i>Time p/m fit³</i>	<i>Experience in founding team</i>	<i>Validation methods used</i>	<i>External investment</i>
SOC1	9 months	2	X	9 months	Entrepreneurial experience Sector experience	Low-fidelity MVP, quantitative surveys, customer interviews, advise from network	Impact investor, subsidies
SOC2	2 years and 5 months	1	10 months	Not yet	Sector experience	Surveys, focus groups, advise from network, soft launch high-fidelity MVP	FFF, Subsidies, Pharmaceutical company
SOC3	1 year and 4 months	3	4 months	Not yet	X	Low-fidelity MVP, quantitative surveys, focus groups, customer interviews, advise from network	Pitch award, FFF, Insurance company and two angel investors
COM1	1 year	0	4 months	3 months	Entrepreneurial experience Sector experience	Quantitative surveys, focus groups, interviews, advise from network, Low-fidelity MVP	X
COM2	10 months	0	12 months	9 months	X	Low-fidelity MVP, quantitative surveys, focus groups, interviews, advise from network	Two angel investors
COM3	X	0	4 months	Not yet	Entrepreneurial experience Sector experience	Quantitative surveys, focus groups, interviews, advise from network	No, first-round planned on the end of 2019

Table 3 Overview within-case analysis

*All numbers are rough assessments based on quotes in the interviews. The months are estimates since quotes are not always completely precise. The table is presented to reveal potential differences so that they can be explored rather than to compare the absolute number of months spend in each phase. The numbers can also be identified in the timelines of the within-cases analysis.

¹ Part-time time investment founders before business was established

² Time towards launch high-fidelity MVP. Calculated from the official establishment of the firm

³ Time towards achievement product/market fit. Calculated from the official establishment of the firm

4.3 Cross-case analysis

The aim of the cross-case analysis is to find potentially different generalisable patterns in the development and validation process across the two case groups. This section contains three parts. Building on the findings of the within-case analysis in section 4.2, the first two parts address possible similarities and differences in the process of the idea validation and development process across the cases of social versus commercial entrepreneurs. Additionally, the differences section encompasses a discussion about the potential factors that substantiate or disregard the proposed patterns by looking for an explanation in the data and/or in the theoretical framework. At last, the third part summarises all the information of the within- and cross-case analysis into a potentially generalisable process model that can give an initial understanding of the differences on how social and commercial entrepreneurs navigate in the development and validation process.

4.3.1 Similarities

Confidence in the abilities to start a company

In the theoretical framework, it is argued that social entrepreneurs might be less confident in their abilities to start a business. The qualitative research design does not give us the capability to determine or compare whether the entrepreneurs in the case groups differ in confidence level on their own entrepreneurial skills. Since it is not the aim to find causal relationships that does not matter, it rather has been used as a direction for the data analysis. However, not many quotes were identified in relation to this category ‘confidence/insecurity about building a business’. As well as that, within the gathered quotes, no generalisable patterns can be identified between the groups. For instance, SOC3 state that:

SOC3-I1: *“You have to do so many things. Our work experience is neither that big. Sometimes you think? How do I actually have to do this? Then you have the team watching at you like; You are going to tell me. Sometimes I just do not know either...”*

Whereas SOC2 states:

SOC2-I1: *“I never doubted any moment that we would succeed.”*

Neither have we indicated generalisable patterns that could be declared by (the lack of) self-confidence in the entrepreneurial journey. Both Hoogendoorn (2012) and Harding (2007) do not provide clarification on why social entrepreneurs would be less confident. Additional quantitative research is needed in order to prove the argument, as well as that additional qualitative research, is needed to see whether and what kind of influence self-efficacy has during the idea validation and development process.

The time before the establishment of the firm and experience

No differences or patterns can be distinguished in the way social and commercial entrepreneurs spend their time before the official establishment of their company. Since it is not the scope of this research, it is only touched upon briefly. Nevertheless, all entrepreneurs spent a significant amount of time preparing the start of their business on a part-time basis (Table 3). This is important to mention because already much of the customer discovery activities are conducted during this period. The minimum amount was 9 months and the longest preparation time is almost 2,5 years (Table 3). No difference between the social or commercial group can be identified. Additionally, in four of the six cases (SOC1, SOC2, COM1, COM3), the entrepreneurs had prior experience or expertise in the segment in which they established the firm. In other words, all companies in this case study have not arisen in a spur of the moment but were established after extensive preparation.

Everything takes longer than expected

In every case, the interviewees acknowledge that there were delays in the process, that plans took longer than expected or that, in hindsight, they could have gone faster. In both groups, these postponements can be identified in the Customer discovery phase as well as in the Customer validation phase. The arguments of the interviewees for the delays can be summarised by two reasons. First, the interviewees argue that they are to some extent depended on other

(corporate) organisations, which form bottlenecks in their validation and development process. These bottlenecks arise in the process of investment gathering, partnership collaborations or the development of high-fidelity MVPs.

COM2-I2: *“The slowness of these large parties is withholding us from going faster. Every time, if something is asked to us, we do it the same day. And then, the ball is with them for the next weeks or even months. That can be so annoying.”*

SOC3-I1 *“You have to get to know the investor landscape. That is hard, it costs time too (...). You e-mail them today, you have an appointment in three weeks and before you know you know, three months have passed. While you actually need the money within 3 months.”*

Second, in line with the literature of Blank & Dorf (2012) and Ries (2010), all the interviews describe the validation and development process as iterative, several pivots were identified. They all mention that they have encountered challenges along the way, which could not have foreseen beforehand.

COM3-I3: *“What I have learned as an entrepreneur, is that you are constantly depended on others both inside as outside your organisation. We are constantly muddling up, that is just part of your process.”*

SOC2-I2: *“I tell people a lot about our history. You visualise a picture of an increasing straight line. You are on the bicycle to a goal. However, what you actually see are many potholes and rocks where you are going through. Just things that you could have never foreseen.”*

Starting a new business is teamwork

When the interviewees were asked to elaborate on the changes that occurred since the moment they established the business, many times the entrepreneurs also elaborated on the evolution the team experienced since the beginning. These statements are also compared, however, no remarkable differences can be identified between the social and commercial group. All the

companies were established by at least two founders. Additionally, in five of the cases, the interviewees elaborated on the importance of a good founding team composition. The combination of expertise's or character traits recalled by the interviewees varied across every case. For instance:

SOC2-I2: *“It is the combination of us two that is so important. You have to have someone is so determined in that sense that he says: “It does not exist that it is not going to work”. That he is almost blind. I have that a little bit, but I am more focused on reality. And he is like: “Let’s do this.” He can make decisions that I, as a realist, never would be able to make.”*

COM1-I3: *“That is an important thing. We were always in it for the scaling possibilities. But they were more about pampering and guiding customers. (...) That is where we could learn from each other and complement each other.”*

Other combinations in the founding team identified were: a more commercial – social perspective on new business opportunities, entrepreneurial experience – management experience, younger – older and more people-orientated – task-orientated management. In conclusion, they all acknowledge the importance of a good fit within the founding team, however, no specific characteristics or traits can be identified across the two case groups.

Additionally, different topics regarding team collaboration were identified across all cases. First, within every case, they elaborate on how, as the team increased over time, a more specialised work distribution was adopted. Second, interviewees of four different cases elaborated on the fact that they learned about their hiring procedure over the years. In the early stages of the business, they were less critical who they were hiring. As they gained experience, they came to the conclusion that more time needed to be allocated to the hiring procedures.

SOC1-I1: *“My philosophy has always been, one we did abandon though. I have few resources and little time to do a hiring and selection procedure. So if I come across*

someone, who wants to work for me. I am like: Let's do it's. Well, you can visualise, that does not always work."

COM2-II: *"So now we have a more a hire slow, fire fast policy."*

4.3.2 Differences

The following section is structured as follows. We start with a description of a particular part of the data in order to show the reader on the basis of what arguments a difference is identified. As a result of this description, a potential pattern is presented. Subsequently, we continue with a discussion about the potential factors that substantiate and disregard the proposed patterns by looking for explanations in the data and/or in the theoretical framework.

However, before the patterns are presented, it important to emphasize that on the basis of this sample, drawing a definite conclusion would be too short-sighted. Additional data gathering is needed in order to further explore and prove these statements. The same applies to the arguments that explain the patterns. In conclusion, the patterns need to be considered as potentially interesting results that can give insights and guide the direction for future research.

Number of pivots

Within the boundaries of this case study, it seems that social enterprises pivot more often than commercial enterprises (Table 3). No pivots were identified in the commercial case group. Whereas within every social case one or several pivots were recognised. From the in total the six pivots in the social case group, four can be labelled as strategic changes in the revenue models to improve the product/market fit. These will be discussed in the next sections. The two other pivots recognised (in SOC1 and SOC3), appeared in order to achieve the problem/solution fit. On the basis of this number the following pattern is suggested:

Proposed pattern 1: Social entrepreneurs pivot more often in the idea validation and development process than commercial entrepreneurs in order to achieve the problem/solution fit.

To investigate whether pattern 1 actually exists, the data is analysed in order to find possible reasons or factors that might declare the difference. No clear differences can be found in the methods that commercial and social entrepreneurs used to formulate and validate their assumptions about the problem, solution and the problem/solution fit, nor can a difference be identified in the time spent in the Customer discovery phase (Table 3). Across all cases, all entrepreneurs selected a combination of qualitative and quantitative research methods in order to discover the preferences of their customers.

However, although both groups consist of founders with and without sector or entrepreneurial experience, an explanation for pattern one can still be identified by looking at the data from this angle. As explained in the within-case analysis, COM1 was established by the founders of two different companies, who together created an entirely new product. However, they have had many insights from their entrepreneurial and sector experience in the field. Very bluntly, you could reason that the establishment of COM1 was a large pivot itself. Or that their time in their previous businesses was an extensive customer discovery phase. Since they have spent so much time with the customer before the establishment of the company, it can be argued that it is less likely that COM1 pivots in order to find the problem/solution fit. Additionally, the software that forms the basis for COM3 was used in a University project in which the founders of COM3 were involved too. So before they took the decision to bring the software to the market, the founders already spent significant time with potential users. Because of this, it can be argued that, also in this case, the entrepreneurs of COM3 were less likely to pivot.

In conclusion, the fact that no explicit differences can be identified in the validation methods as well as it can be argued that due to personal experience, two of the commercial cases were less likely to pivot, this first pattern should be called into question. Further research

has to indicate if indeed social entrepreneurs are more likely to pivot in order to establish the problem/solution fit.

Timing revenue model validation

Building on the findings of the within-case analysis of SOC2, SOC3, COM1 and COM2, it is suggested that there is a difference in timing between social and commercial entrepreneurs on when they start with testing their revenue model. SOC2 and SOC3 both started developing and offering their high-fidelity MVP on the market, while they had not directly tested their pricing assumptions with their customers.

SOC2-I2: *“After a few months, the number of people that subscribed could be counted on one hand.”*

In line with this, SOC3 initially offered their application for free. It was only after the product was launched that they started thinking about how to make the business financially independent.

SOC3-I1: *“We actually never had a real business model. I don not believe if a company only operates on subsidies or gifts. But you need to make sure that you have a business model as soon as possible. We are really working on that now. ”*

SOC3-I1: *“I wish we would have started earlier with the financial business model. That we would have thought about it more in the beginning.”*

In comparison, COM1, COM2 and SOC1 validated their financial business model with the potential customers before they developed the high-fidelity MVP. The validation took place by conducting customer research both qualitatively, quantitatively or by the use of their low-fidelity MVP. In other words, these companies had a validated plan of how to earn back their (external) investments before launching a high-fidelity MVP. Nevertheless, COM3 also launched their high-fidelity MVP before choosing and validating a particular financial revenue model. However, the difference between COM3 and SOC1 and SOC2, is that COM3 is not entirely financially dependent on external investments. They are currently testing what would be the best business model, keeping different options open, however, they have a stable income

stream. Whereas SOC2 and SOC3 are entirely dependent on external investors as well as do not have a validated financial business model. On the basis of the former description, the following pattern is proposed:

Proposed pattern 2: Social entrepreneurs start validating the revenue model later in the validation and development process.

By analysing the data and theoretical framework, one argument appears to substantiate this pattern. The stories of SOC2 and SOC3 indicate that they are more focussed on solving the problem for their customer, than on building a business. This is in line with the suggestion of Miller et al. (2012), who state that social entrepreneurs operate from more other-centred motivations and out of compassion. The data seems to reveal that social entrepreneurs focus more on the benefits for the customer, in other words, prioritize the achievement of the problem/solution fit, than on finding a suitable income stream for themselves.

SOC2-I2: *“If you ask me, what determines if an entrepreneur succeeds yes or no. What I think: You have to have a product that people find appealing. We have the solution to a very large problem and it works.”*

SOC2-I2: *“We are social entrepreneurs, we are not in there for the money (...) The product must be right. It works and it is effective. That is all that matters. Of course, we have to make money. For sure, but we will find a way.”*

COM2-I2: *“At some point, we decided we just have to do our thing. Instead about talking with everyone what it should look like, it got way to complex. (...) But we regret some of our decisions”*

Pivots in revenue model validation

The third potential difference was recognised by looking at the number of pivots concerning the revenue model. Within the social case group, four of these pivots were identified. First, at a very early stage, SOC1 pivoted their revenue model by changing their focus from short-term orientated tasks to larger long-term orientated projects. Second, SOC2 did not test their

(incorrect) assumptions about the willingness of their customers to pay for the application. They pivoted their business model by making the application free, with the aim to make it financially sustainable in the future by reimbursing the usage with insurance companies. Additionally, SOC3 changed from a free business model to a freemium/premium model in order to achieve product/market fit. They did not test the willingness to pay for a premium account and the desired result was not achieved. Therefore, they are currently changing their business model to an annual subscription. No pivots are recognised in the commercial case group. Therefore the following pattern is suggested:

Proposed pattern 3: Social entrepreneurs pivot more often in order to establish a product/market fit

Two factors can be identified in the data that substantiate the proposed pattern. First, as described in the theoretical framework organisational and personal values can have an influence on the decision-making process (Dacin et al., 2010; Stevens, 2017). SOC2 and SOC3 both argue that they aspire their values to be in line with their business model. Whereas the commercial companies do not mention the importance of their organisational identity or values with regard to the validation of the revenue model.

SOC2-I2: *“The funny thing is, within the team, we had something like: our story is better now. It² resonates better with our own core values (integer, patient-driven, open brave) as to external parties.”*

SOC2-I2: *“Our data can be very interesting. But that asks for a different business model (the difficulties of privacy and GDPR neglected). But that actually conflicts with our characteristic and with who we are.”*

SOC3-I1: *“The new financial business model better matches who we are and what we stand for.”*

² It refers to the pivot from the paid version to a free version of the application.

So within the data, it can be recognised that the social entrepreneurs experience competing institutional logics, based on their values and identity, in order to find a sustainable financial model. It can be argued that these competing logics complicate the financial element of the validation process for the social entrepreneurs, which might be an explanation for the pivots. This is something also acknowledged by the founder of SOC1 who is, as described in the within-case analysis, also employed as start-up coach for Social Enterprise NL.

SOC1-I1: “Social entrepreneurship will be never successful, as long as the dichotomy exists between impact and finance. It is ánd ánd, and no other way. You need value for your customers as well as for your company. That is what I try to learn them. Their values are in their way. (...)

SOC1-I1: So you have to be authentic, relevant, match the competitors, different than someone else. And as a social entrepreneur, you add an extra dimension: you add something to society. Actually, it is very simple: You just make it yourself more difficult. That is it.”

Second, something that SOC2 and SOC3 have in common is that they both omitted to test their revenue model with the customer. It can be suggested that, in line with the arguments of Miller (2012), the social entrepreneurs in these cases were prone to the confirmation and/or availability bias, when developing a pricing strategy, since it was only after the product was launched, it came apparent that their business models were built upon assumptions. SOC3 states that they did not verify with the customer base about the freemium/premium model because of the positive reactions to their application. Additionally, SOC2 derived his or her assumptions from knowledge/feelings which they have attracted during their previous professional career with the target group.

SOC2-I: “In our case, we address ‘a real’ problem. Cancer-related fatigue is such of high importance. There is no solution for that, so that’s where we jump in. And we

thought: we could easily attract these downloads. (...) We thought, for instance for meditation application like headspace, people pay a lot of money. This is something similar.”

In conclusion, since possible reasons for the pattern can be identified and connected with the theoretical background, as well as that it is confirmed by the founder of SOC3, the pattern can be treated as an initial insight that could be interesting for future research. Moreover, it is very relevant to emphasize that pattern two and pattern three might be interesting to explore simultaneously as they both have an effect on the financial side of the business model validation and it is assumed that they arise from similar underlying mechanisms. In fact, the combination of both patterns has an influence on other aspects of the idea validation process. This will be described in pattern five.

The moment when to launch the high-fidelity MVP

The data reveal a potential difference between social and commercial entrepreneurs in the timing when to launch their high-fidelity MVP. This potential difference was recognised by comparing the reasoning of the entrepreneurs on the decision when to present the product to the market and invite actual (paying) customers to the product. The pattern cannot be recognised in SOC1 since they chose to put aside the development of their high-fidelity MVP in an early phase. Additionally, this pattern cannot be identified in the development of COM3 since the software was already available from earlier projects. However, building on the within-case findings of COM1, COM2, SOC2 and SOC3, the following is suggested:

Proposed pattern 4: Within the high-fidelity MVP building period, social entrepreneurs launch their MVP later than commercial entrepreneurs.

Two explanations are found in the data and theoretical framework that substantiate the pattern. First, it is argued that social entrepreneurs might use different evaluation criteria in their reasoning when to launch the product. The founder of SOC2 argues that they only want to release the application to the market when it had reached a certain standard. He states that they

do not believe in the MVP part of the Lean startup ideology for his company. While the official launch party was planned already, they postponed the release with three months in order to ensure higher quality. The founder denies wanting to develop a perfectly finished product straight away. However, he emphasises to choose quality over the time pressure of the deadline.

SOC2-I2: *“You can only spend money once and if you have a bad product, that will be spread in the world of oncology. (...) This is a very sensitive topic, a very us-knows-us culture, as well as a cancer patient is not the same as someone buying a bike.”*

Likewise, similar reasoning can be recognised in the arguments of the founder of SOC3, who also emphasize the importance of the first impression.

SOC3-I1: *“At that moment, we were working together intensively with the Rode Kruis, through which we could potentially reach many people straight away. (...) So we were really determined to not just deliver a decent product, but really put all the dots on the I’s in order to leave a good impression.”*

On the contrary, COM1 and COM2 took a different perspective on the decision when to launch the product. They state that they want to have the product on the market as soon as possible. On the one hand, the founder of COM1 reasons that this is a conscious choice, a vision they have since they want to test in the usage of the features in a real-life setting.

COM1-I2: *“You want to go to the market as soon as possible, to look at whether it will be used. Unless you make an aeroplane or do something with healthcare, but otherwise you just have to go as soon as you can.”*

However, on the other hand, he argues that the launch date was also forced by financial pressure and time pressure. For that reason, in hindsight, all the three interviewees of COM1 argue that it might have been too opportunistic in their timing when to launch the product.

COM1-I1: *“So you have to test everything, and build prototypes, to see what you have to adapt. However, we did not do that enough. That just takes too much time, we did not have time and no money. We did not have that luxury.”*

In the data of COM2, similar motives can be identified.

COM2-I2: *“At some point, you are just so eager to see if things will work. You do not want to wait anymore. We were not sure if we could handle more people yet, but we sometimes you just cannot test before you get on the market. Sometimes you just have to take the shot.”*

COM2-I2: *“Well promising something, you do not know if you can achieve, raises your own standard. It gives you direction.”*

Similar to COM1, also COM2 indicates that this approach caused them to launch the product a bit too soon. However, they also mention that they think this is part of the validation process.

Applying the former arguments to the theoretical framework, it is suggested that the data reveals a potential pattern in which social and commercial entrepreneurs consider different factors to decide when to launch the product. It is argued that social entrepreneurs are influenced by their other-centred motivations. For that reason, they focus on reaching a particular standard before exposing the product to the market, regardless of time or financial pressure. Whereas, commercial entrepreneurs appear to take a more self-centred approach as they want to test the features as soon as possible in a real-life setting and simultaneously are guided by time and financial pressure.

Second, in the same quotes, it can be identified that social entrepreneurs want to wait with launching the product because they are sensitive towards the reaction of others. Both SOC1 and SOC2 argue that their reputation is at stake if the product is not good enough. While the entrepreneurs of COM1 and COM2 take for granted that some customers might be unsatisfied as they reason it is part of the entrepreneurial process. This is also reflected in the theoretical

framework as Austin (2006) argues that social entrepreneurs are more embedded in a network of stakeholders and therefore might find their opinion more important.

However, a counter-argument that might refute the just explained cognitive justifications behind this pattern, can be found in the manner the social and commercial group have developed their product. It is important to mention that SOC2 and SOC3 have outsourced the development of the MVP, whereas COM1 and COM2 did the development with in-house developers. During the interviews, it became evident that outsourcing software is cheaper, however, also makes the development process more complex. During the interviews of SOC2 and SOC3, the interviewees remark that the collaboration with their contracted software development companies can be characterised as very labour-intensive and complex.

SOC2-I2: “By experience we learned, if you build a house you also need a painter, a plumber, and a bricklayer. This is the same with building applications. I will never ever again get in bed with a software development company that states that they can do it all.”

SOC3-I1: “We thought, we tell them what we want, and they build it and everything will naturally follow. Well, that is not the case at all”

Besides the stiff co-operation, both social and commercial entrepreneurs argue that you ideally hire your own developers since that makes you more flexible to react to arising issues. However, for SOC2 and SOC3 this was financially unfeasible at the time of the high-fidelity development. It can be argued that commercial entrepreneurs are more comfortable with launching the product sooner since they are more self-centred or sensitive to time and money pressure, but another explanation could lay in the advantage of employing your own developers. In other words, they might be more comfortable with launching the product earlier since they have the flexibility to change and improve any errors relatively quicker. Whereas SOC2 and SOC3 are

dependent on a third party. This is acknowledged by SOC3, who eventually hired in-house developers.

SOC3-I1: *“It really caused so many positive changes already. It brought us already much more. (...). We can switch so much quicker. First, we were dependent on what they were building, now I just call to the other side of the room.”*

In conclusion, the potential pattern identified can be substantiated with theoretical arguments but can also be disproved by looking at the practical implications of the development. Future research has to demonstrate whether social entrepreneurs indeed take different criteria in validating the quality over their product.

The search for investment

Since all the social entrepreneurial companies in this research data, gathered investment from more types of sources than commercial entrepreneurs (Table 3), their reasoning about their investment procedure was compared. This revealed a potential difference in the way they perceive the investment process. SOC1, SOC2, SOC3 indicate that they are constantly looking for ways to find money.

SOC1-I2: *“You always want faster than that is financially possible. You always have more ambition than money. But you need to find a good one, that matchmaking is difficult. When it gets hard, they are out pretty soon in my experience. It has taken us months and months.”*

SOC2-I1: *“We are constantly on the search for more money and for ways to get extra money. I’m sitting here, I need to get payed too.”*

SOC3-I1: *“We looked into subsidies and funds too, but that takes just a lot of time (...). That is time-consuming work. So we are also constantly exploring other ways to attract money. There must be another way.”*

For the commercial case group, a different pattern was recognised. COM1 did not raise external investment, so therefore is disregarded in the development of this pattern. It appears that since COM2 and COM3 have an independent income stream, they are less depended on finding external investment. Additionally, they do not argue to be constantly looking for financing options, but rather reason about it as a more incidental activity for instance to develop the MVP or scaling-up activities.

COM2-I2: *“It was fairly easy, we found someone without any effort.”*

COM2-I2: *“So in October 2017, we raised our first investment to develop the application.”*

COM3-I3: *“So we delayed the attraction of investment as long as possible. What we did was investing our time, in terms of an annual salary of 40.000 euro. (...). We thought, now we need the money to really make professional steps.”*

So building on the formerly described situations of COM2, COM3, SOC1, SOC2 and SOC3, the following pattern is suggested:

Proposed pattern 5: Social entrepreneurs perceive the search for investment as a continuous process, whereas commercial entrepreneurs perceive the search for investment as an incidental process.

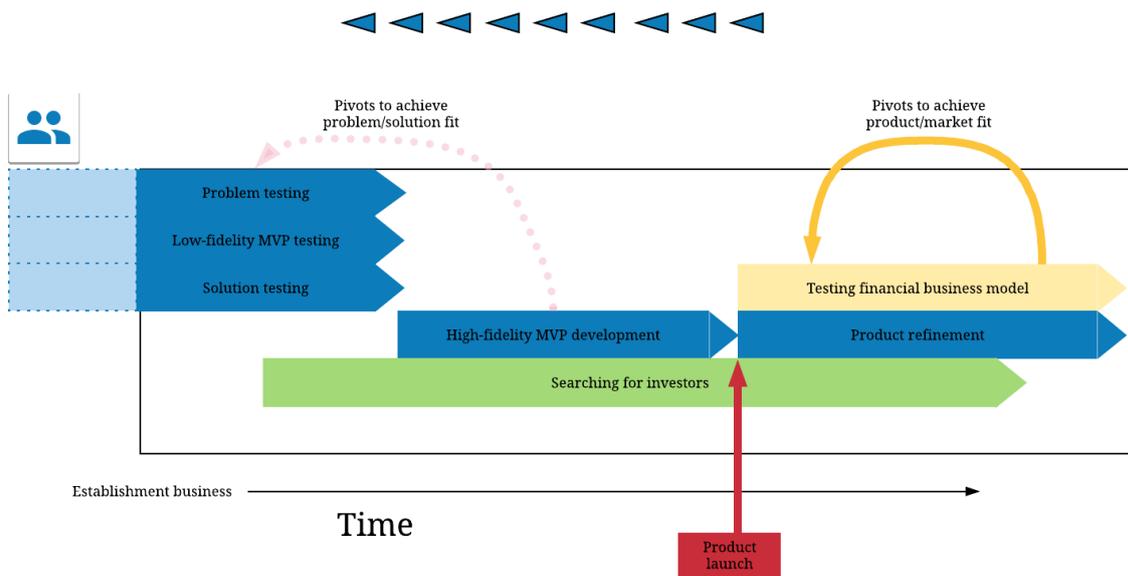
An explanation for this pattern can be found by looking at the consequences of proposed pattern two and three. As explained, both SOC2 and SOC3 do not have a validated revenue model as for now. This has two consequences. First, because of this, they are more dependent on external financial sources as they do not have a considerable income stream themselves. For this reason, money is an unstable factor in the social enterprises, which might explain why raising investments continuously asks for the entrepreneurs’s attention. Second, as in line with the theoretical framework (Austin et al., 2006), the social entrepreneurs in this case study also have more varied sources of income (Table 3). Having to manage different income sources might

also explain why social entrepreneur perceive the investment process as more continuous. Nevertheless, data on a larger scale has to further indicate whether this difference exists.

4.3.3 Emerging process model

The results of the cross-case analysis are visualised in figure 8. This research identified four similarities and five differences in the idea validation and development process of social and commercial entrepreneurs. Activities or processes that are similar in both groups are blue-coloured. The differences are indicated with colours. This section provides a written explanation of how to interpret the emerging framework. The first similarity has not been drawn in the figure, as this would not benefit its clarity.

Social entrepreneurs



Commercial entrepreneurs

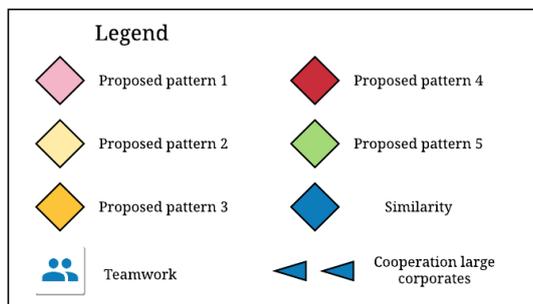
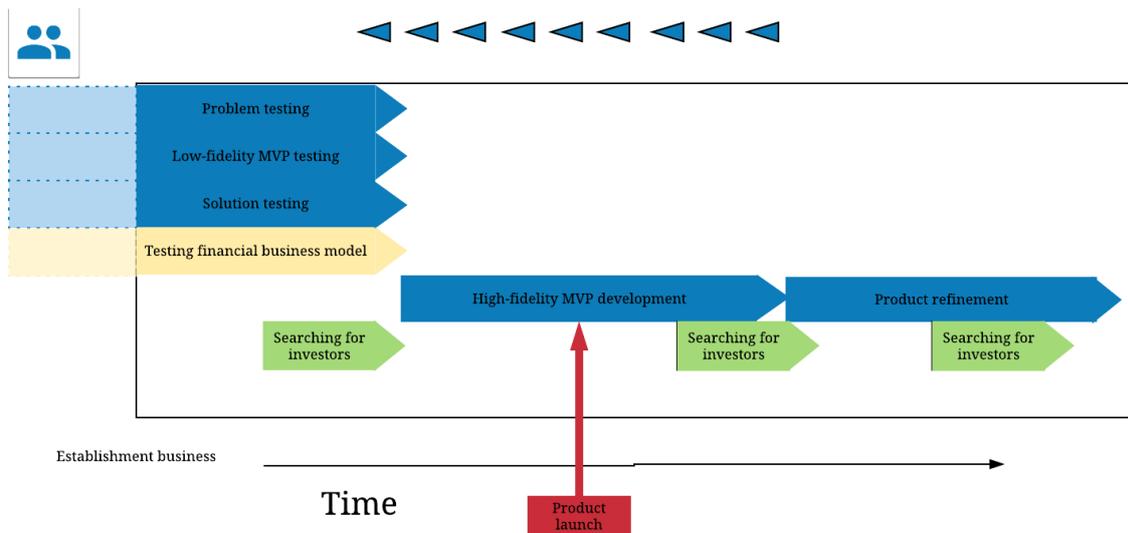


Figure 8 Emerging process model: Idea validation and development process of social versus commercial entrepreneurs

In this research, four similarities are suggested to appear in the idea validation and development process. First, contrary to the statements in the theoretical framework, nothing in the cases indicate that there might be a difference in confidence level on starting their own business between social and commercial entrepreneurs. Second, both entrepreneurial groups spent a significant time preparing their business on a part-time basis. Third, both social and commercial entrepreneurs emphasize the notion that starting up a business is teamwork, as well as that a good match within the founding team is essential for success. Fourth, the entrepreneurs in both case groups describe their development process as complex and iterative. First, because they are depended on so many different parties and other especially corporate organisations. Second, because they acknowledge this is due to the learning process as many things are could not have been foreseen.

Furthermore, five patterns have been identified that indicate differences between the two groups. The first pattern [pink] consists of the suggestion that social entrepreneurs pivot more often in order to find a problem/solution fit. This pattern was identified by looking at the number of pivots in the two case groups. However, the pattern is drawn with a dotted line since as explained, this pattern should be called into question because no differences in validation methods were identified as well as differences in the cases might have led to an unequal comparison.

The second pattern [yellow] suggests that social entrepreneurs start validating their revenue model later in the idea validation and development process. In the data, it appeared that the social companies started validating the revenue model after the high-fidelity MVP was launched, whereas the commercial entrepreneurs have investigated their revenue assumptions by the means of customer and market research for before the launch. One argument can be identified in the case data and the theoretical framework that can substantiate this pattern. In line with the assumptions of Miller et al. (2012), social entrepreneurs reveal more other-centred

motivations. This entails that social entrepreneurs might prioritize achieving the problem/solution fit, instead of establishing the product/market fit.

The third pattern [dark yellow] suggest that social entrepreneurs pivot more often in order to achieve their product/market fit. Two possible explanations can be identified in the data. First, it appears that social entrepreneurs desire to have their (organisational) values to be confirmative to their pricing strategy, which makes creating a suitable financing model more complex. Second, it appears that the social entrepreneurs, due to the availability bias and confirmation bias, did not correctly test their pricing assumptions or omitted to conduct customer research before the product got launched to the customer. In other words, it became evident that the envisioned pricing strategy did not work after it got implemented. The assumptions for the pricing strategies were based on sector experience and by looking at favourable examples in the market. The literature states that these biases are likely to occur because of the other-centred motivations, which have been also identified in the casa data. Additionally, the second and third pattern are both coloured in yellow because it is suggested that for future research, it would be interesting to further explore these patterns together since it is argued that they arose because of similar underlying mechanisms (other-centred motivation) and also have effect on the investment process as will be explained in pattern five.

The fourth pattern [red] suggests that social entrepreneurs launch the high-fidelity MVP later in the MVP development process. Here, it is argued that social entrepreneurs might use different evaluation criteria to make the decision when to launch the product. In the case data, social entrepreneurs are influenced by other-centred motivations and therefore want to ensure delivering a high standard, even under financial pressure or time pressure. Whereas, commercial entrepreneurs, who are influenced by self-centred motivations in combination with time and financial pressure, aspire to bring the product to the market as quickly as possible so that the product can be tested in real-life settings. A second explanation of the fourth pattern,

suggests that social entrepreneurs want to ensure their reputation in their embedded network. However, one counter-argument for the influence of the cognitive characteristic is identified. In the case data, social entrepreneurs developed the high-fidelity MVP, because of money constraints, with external developers, whereas commercial entrepreneurs hired in-house developers. Therefore, it can be suggested that commercial entrepreneurs were more comfortable with launching the high-fidelity MVP sooner, because they have the flexibility to make changes to the product quickly. Whereas the social companies were depended on third parties. In conclusion, additional research gathering has to prove whether pattern four exists and what might be (the combination of) underlying mechanisms.

The fifth pattern [green] suggests that social entrepreneurs perceive the search for investment as a continuous process whereas commercial entrepreneurs perceive the search for an investment as an incidental process. It is suggested that the fifth pattern is an outcome of pattern two and three. Since it is argued that social entrepreneurs are more dependent on external investors as well have more varied sources of income, it is likely that raising investments continuously asks for the entrepreneur's attention.

4.5 Practical implications

Although the aim of this research is to find differences in the idea validation and development process instead of finding causal relations, the explanations of the proposed patterns indicate that social and commercial entrepreneurs might have different cognitive characteristics that play a role in the idea validation and development process. First, this research suggests that the personal values of the founder might complicate the process of finding suitable pricing strategies. Second, the other-centred motivations might have influence in the decision when the high-fidelity MVP is launched, when and how the revenue model is validated.

These cognitive characteristics are important to consider as it revealed that it might result in complicating the validation and development process, as well as it provoked the

availability and confirmation bias. Therefore, it is suggested to founders and/or coaches of social enterprises to emphasize the usage of validation models such as the Customer development method of Blank and Dorf (2012) or the Lean startup method of Ries (2010). In particular, it is recommended that social entrepreneurs put emphasis on implementing short cycles of testing the revenue models in the Customer discovery phase, before moving to the Customer validation phase. In other words, more attention should be given to the financial business model validation, before the product is developed or launched. In this way, the influence of personal values and other-centred motivations become more constrained. Which results in a more equal prioritisation of achieving the problem/solution fit as well as the product market/fit.

SOC1-I1: *“The biggest problems for social entrepreneurs arise if they argue: impact first.”*

4.6 Limitations and directions for further research

Before concluding, several limitations of this research should be discussed. First, the most prominent limitation of this research is the sample size. Although this is an inductive case study that aims to get an initial understanding whether there are differences in the process, a much larger sample size per group is preferred in order to make a more representative comparison since there is a considerable chance that the proposed patterns are just coincidence.

In line with this, the second limitation is that, despite the case requirements being set, a variety within and across the samples existed, for instance in terms of sector dynamics, entrepreneurial experience and start-up capital. The different markets might have their own institutional logics which is disadvantageous for comparing the cases. This can be recognised in for instance quotes of COM1-I1 and SOC2-I2:

COM-I1: *“Well, in education it is important that everything is connected.”*

SOC2-11: *“Although, we solve a worldwide problem, every healthcare system per country is different. That is something you need to consider.”*

This signals that there were also external factors that had an influence on the idea validation and development process in the current cases. This is in line with the research of Gartner (1985), who argues that the venture development process is an interplay between individual, environmental and organizational factors. This has two implications. First, if the research towards identifying differences in the idea validation and development would be conducted again. It would be recommended to narrow down the case requirements. Narrowing the case requirements would strengthen both internal and external validity. Second, being aware of this signal gives insights for future research possibilities. Although we assume that, it is reasonable to argue that social entrepreneurs might possess several different cognitive characteristics compared to commercial entrepreneurs, in the current study we should be cautious with linking the emerging patterns directly to their individual characteristics. Since, as explained, besides the cognitive characteristics, many other things could have had an influence on their decision making. In future research, it might be interesting to explore the impact of these cognitive and psychological characteristics on the idea validation and development process. In that case, it is recommended to sharpen the case requirements in such a way that the entrepreneurs operate in the same sector, so that environmental and organisational differences are eliminated (for instance as in the research of Pache and Santors (2013)).

Third, it is challenging to draw a process model from one time interviews. Since the data is only constructed by three interviews per case at a single moment in time, the information may not be completely concise and in-depth. Additionally, the perception of the interviewee on the path they have followed might be influenced by the present-day situation they are in, as well as they might be influenced by a retrospective view. The storylines in the cases are drawn upon a retrospective view of how the interviewees have perceived the process while they already

know the outcome. This limitation could be avoided in the future by actually following entrepreneurs in different moments in time, in order to construe a more accurate, in-depth and objective timeline.

Fourth, only one type of data gathering was conducted, since the only source for the cases were the transcripts of the interviews. In future research, the usage of multiple different sources such as observational and archival data would strengthen the internal and construct validity of this research.

5. CONCLUSION

The purpose of this research was to explore and give initial insights on the differences in the idea validation and development process of social and commercial entrepreneurs. The proposed patterns together suggest that differences between social and commercial entrepreneurs might occur in terms of the prioritisation, the timing and the perception of activities in the validation process as well as that there are signs that the social entrepreneurial validation process is more iterative. Additionally, this research suggests that two cognitive and psychological characteristics of social entrepreneurs might substantiate the proposed patterns. First, it is suggested that the prosocial values of the social entrepreneur might complicate the financial business model validation and therefore leads to pivots in order to achieve the product/market fit. Second, the other-centred motivations of social entrepreneurs might have an influence on the prioritisation of achieving the problem/solution fit above the product/market fit as well as on the decision to launch the high-fidelity MVP later to ensure its quality. Additionally, the implications of the delay and complexity in the achievement of the product/market fit, might result in the notion that social entrepreneurs perceive the search for investment as a continuous process whereas commercial entrepreneurs as an incidental process.

Nevertheless, it is important to emphasize that cautiousness is required when linking the initial insights directly to the cognitive characteristics of social entrepreneurs, as the findings also reveal possible organisational factors and case-specific, restrictive details that influence, substantiate and disprove the patterns. Additionally, in order to effectively construct such a process model a much larger sample size and longitudinal approach is desired.

With the consequences of a small case study in mind, this research contributed to the literature as it gave initial insights on the differences between the cognitive processes of social and commercial entrepreneurs when they validate their business idea. Additionally, it explored how cognitive and psychological characteristics of social entrepreneurs and other factors had

an influence in this process. At last, this research contributed with proposing predictable patterns that can be used as guidelines for management and coaching purposes. It is suggested that social entrepreneurs need to put extra emphasis on using validation models such as the Lean startup and Customer development framework, as they prevent the influence of personal values and other-centred motivations in the idea validation process.

Future research can build up on the initial insights of this report by further exploring whether personal values and other-centred motivation indeed have such an influence on the idea validation and development process, by constructing a case study design that eliminates all the organisational and environmental differences between the two case groups. Additionally, future research can take the road of exploring the influence of self-efficacy in the social entrepreneurial process as no findings arose in this research. This might be especially interesting to study in combination with the influence of strong personal values and other-centred motivation.

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APPENDICES

Appendix 1 Interview protocol

Introduction questions:

What does your business/product/service look like?

1. Can you elaborate on how it started?
2. Is this your first business?
3. What moment do you consider as the official market entry of the product/service?

Development and validation questions

1. How does the product/services currently differs from the moment you 'launched, started the business?
2. Can you talk me through which changes have occurred from the beginning of the process of the change(s)? Can you describe the changes for me?
3. Can you elaborate on how the team changed since the establishment?
4. Can you elaborate on how you have searched for investment?

Questions per change / development

5. How long did this process take you?
6. When did you recognise you needed a change?
7. How did you recognise you needed a change?
8. How did you respond to this change?
9. Who were involved in the changes?
 - a. What role did they play in the decision
 - b. Who of these people were the most decisive, and why?
 - c. Did you agree with each other?

Appendix 2 Codes and codes categories

<i>Code category</i>	<i>Topics within categories</i>	<i>Quote example</i>
Customer discovery	Low-fidelity MVP	<i>COM2-I1: "We developed an MVP parallel to the research we did. We have had a lot of advantage of it already. We made movies of how it would look like in the stores"</i>
	Revenue model validation	<i>SOC2-I2: "How are we going to make money? Which options do we have and what do we need for that."</i>
	Achievement problem / solution fit	<i>COM3-I1: "Obviously, you want to measure whether there is really a behaviour change. But that is difficult to prove."</i>
	Achievement product / market fit	<i>SOC1-I1: "It was the beginning of January 2017, when I thought. We validated this concept, it works"</i>
	Customer discovery methods: Survey	<i>COM2-I2: "The aim of the research was customer discovery. So the question was: Would you use this as customer? In the end, 1600 people filled it in."</i>
	Customer discovery methods: Focus groups	<i>COM1-I2: In the beginning, we did focus group sessions with the schools and parents."</i>
	Customer discovery methods: Consultants	<i>COM3-I1: "I think you have to be critical on your external consultants. There are few people that really know what to do"</i>
	Customer discovery methods: Interviews	<i>COM3-I2: "The aim of the conversation is to create a atmosphere in which they can say everything they want"</i>
	Customer discovery methods: Network	<i>SOC1-I1: "Simultaneously, I was doing a consulting project for the Telegraaf. There was also a acceleration program. That was a perfect setting for me to test my assumptions too"</i>
	Assumptions testing	<i>SOC1-I1: "I literally made a business model canvas and filled it in. And considered, what are my most tricky assumptions"</i>
	Preparation time before business establishment	<i>SOC2-I2: "So, since 2015, we allocated one day of the week to this project. And that was necessary, otherwise it would never come off the ground. "</i>
Idea initiation	<i>SOC1-I1: "Then I thought on my bicycle, cannot I do a Fairtrade 2.0, but then with technology?"</i>	
Customer validation	High-fidelity MVP development	<i>SOC1-I1: "After half a year, I figured. This is not going to work. So we set aside the development of the platform"</i>
	Product improvement	<i>COM3-I3: " The functionality is evident. However, the design has been improved so much. It better matches the market"</i>
	Customer validation: Experimenting	<i>SOC1-I1: "I do a lot of experiments, of which many fail too"</i>

Customer creation	Marketing Professionalisation Operational growth	COM2-I3: "We do not invest much in marketing yet, we do not think the product is good enough" COM3-I1: " We are working on making the organisation more professional. So that we leave the hobby project. That can be difficult since we do not have that much money" SOC1-I1: Since January I hired a operational manager"
Double bottom line		SOC2-I2: "So on the one hand, you want the customer to be happy, but on the other hand you want business to come in"
Corporate collaboration		COM2-I2 "The slowness of these large parties is withholding us from going faster. Every time, if something is asked to us, we do it the same day. And then, the ball is with them for the next weeks or even months. That can be so annoying"
Team	Hiring process Good fit within team Development over time Friction within founding team Letting go of employees Advisory board Partners	SOC2-I2: "We have a hire slow, fire fast policy now" SOC3-I1 The advantage of Michiel and me is that I'm more the social side and he has more knowledge of the commercial side" COM3-I2: "In the beginning you do everything,. I did social media and the website. Now you have many more specialists. It makes me less involved." SOC2-I2: "He was definitely right on some points. However, it was too soon. We would probably have never come to an agreement" SOC3-I2 Recently, we had to let go of an employee. We did not have money for him anymore SOC3-I1: "We are currently compile a advisory board. We just recognised, if you get help with segments you do not have knowledge in. That is so valuable" COM1-I2: "The university is our partner. We do a lot with them"
Personal experience	Entrepreneurial experience Sector experience	COM1-I3: "I was the founder and direction of XXX. An e-mail system for primary education. " SOC2-I2: "My name is XXX. I used to be clinical psychologist. And was the director of the Healing Downling Institute, an institute that helps people with mental support during their sickness."
Overoptimism		SOC2-I2 "It is the combination of us two that is so important. You have to have someone is so determined in that sense that he says: "It does not exist that it is not going to work". That he is almost blind.

Investment	<p>Process</p> <p>Perception investment process</p>	<p><i>SOC3-I1 "You have to get to know the investor landscape. That is hard, it costs time too (...). You e-mail them today, you have an appointment in three weeks and before you know you know, three months have passed. While you actually need the money within 3 months".</i></p> <p><i>SOC-I2: "You always want faster than that is financially possible. You always have more ambition than money. But you need to find a good one, that matchmaking is difficult. When it gets hard, they are out pretty soon in my experience. It has taken us months and months."</i></p>
Cognitive characteristic	<p>Organizational identity</p> <p>Vision</p> <p>Values</p>	<p><i>SOC2-I2 "Our data can be very interesting. But that asks for a different business model (the difficulties of privacy and GDPR neglected). But that actually conflicts with our characteristic and with who we are."</i></p> <p><i>COM1-I2: "You want to go to the market as soon as possible, to look at whether it will be used. Unless you make an aeroplane or do something with healthcare, but otherwise you just have to go as soon as you can."</i></p> <p><i>SOC2-I2: "The funny thing is, within the team, we had something like: our story is better now. It resonates better with our own core values (integer, patient-driven, open brave) as to external parties."</i></p>
Motivation	<p>Other centred</p> <p>Self-centred / organisation centred</p>	<p><i>SOC1-i1: "Well, later I am 60. An than I have a shit load of money. So what? That is just not where I get motivated from. I want to make impact"</i></p> <p><i>COM2-I2: "At some point, we decided we just have to do our thing. Instead about talking with everyone what it should look like, it got way to complex. (...) But we regret some of our decisions"</i></p>
Personal characteristics		<p><i>SOC2-I1 "I can be fussy. I can co in with a straight leg"</i></p>
Validation frameworks	<p>Lean</p> <p>BMC</p> <p>MVP</p>	<p><i>COM1-I2: "I have also read the books of the Lean startup methodology etc. However, in reality you lack time. I feel guilty about that sometimes"</i></p> <p><i>SOC1-I1: "I literally filled in a BMC, to see what were my most risky assumptions"</i></p> <p><i>COM2-I2: "I had a fourth year student develop a prototype and some movies"</i></p>
Response to feedback		<p><i>COM3-I3: "I really think the feedback of consultancy is valuable. However, also am convinced that you have to be critical of them"</i></p>

Confidence / insecurity about business validation	Insecurity	<i>SOC1-I1: "So if I am insecure, and we are all as entrepreneurs. I call him instead of my wife"</i>
	Confidence	<i>SOC2-I1: "I never doubted any moment that we would succeed"</i>
Timeframe	Data	<i>SOC1-I1 "I had the feeling now we start for real. That was January 2017"</i>
Reputation	Delays	<i>COM2-I2: "We work together with the NS, but that took us six months before we could reach the good person"</i>
		<i>SOC2-I2: "You can only spend money once and if you have a bad product, that will be spread in the world of oncology. (...) This is a very sensitive topic, a very us-knows-us culture, as well as a cancer patient is not the same as someone buying a bike."</i>

Appendix 3 Consent form Interviews

Dear mister/ misses,

Thank you for taking the time to participate in my thesis research. Your input is highly appreciated and will be used for my research on the idea validation process of entrepreneurs. I am doing this on behalf of the master programme Strategic Entrepreneurship. I would like to ask you to read the following bullet points and sign it accordingly.

- I understand that my participation is voluntary. I can withdraw at any time.
- The interview will last between 45 and 60 minutes. I am aware that the interview will be recorded. The tape will be kept confidential and will not be shared with anyone else except for the thesis supervisors. At any time, you can ask to read the transcript. The researcher can modifications when desired.
- I understand that the information from this research will be anonymised So my name and the name of the company are never used in the report.
- I agree with the fact that a description of the company will reveal some information
- I have read and understood the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
- I have been given a copy of this form

My Signature

Date

Signature investigator

Date

For further information, please contact: Lisan ten Arve, lisantenarve@hotmail.com

Appendix 4 Sample invitation e-mail

Beste X,

Via de site van de X kwam ik X tegen. Wat een goed concept en wat leuk dat jullie het al zo goed doen. Ik werd er echt blij van toen ik op jullie website keek. Ik zal mijzelf even kort voorstellen en vertellen waarom ik mail.

Mijn naam is Lisan ten Arve. Ik ben een 25 jarige studente uit Utrecht. Op dit moment ben ik bezig met het afronden van de master 'Strategic Entrepreneurship' aan de Erasmus Universiteit. Ik ben zelf geïnteresseerd en geïnspireerd door sociaal ondernemerschap en heb zelf ook meegeholpen om een sociale onderneming te starten. Dit is de reden dat ik ook graag wil afstuderen op dit onderwerp. Voor mijn thesis wil ik graag sociale en/of duurzame ondernemers interviewen die doornmiddel van technologie hun doel behalen. X past daarin natuurlijk perfect. Mijn vraag is: Zou ik mogen langs komen om je te interviewen over X?

Praktische zaken

- Onderzoeksonderwerp: Idee validatie en product development
- Het zou gaan om een interview van ongeveer 30/45 minuten in de hele maand april of begin mei.
- Mogelijke contact momenten:
 -
- Daarnaast wil ik vragen of ik nog één of twee andere collega's mag interviewen. De functie maakt daarin niet zoveel uit, als de gene maar al iets langer betrokken is bij X. De interviews samen vormen en kleine mini casus voor mijn scriptie.

Ik snap dat je als ondernemer heel druk bent. Toch zou ik je willen vragen of je mee zou willen doen aan dit onderzoek, het zou mij super bij maken. Uiteraard, wil ik altijd mee werken als ik iets voor jullie terug zou kunnen doen!

Als je overweegt om mee te doen, hoor ik dat graag. Ook zou ik dan graag horen wanneer, hoe laat en waar je het beste uit komt. Ik ben te bereiken via dit email adres en via onderstaand telefoonnummer. Ik kijk er naar uit om van je te horen.

Met vriendelijke groet,

Lisan ten Arve

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