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**Entrepreneurial opportunity discovery and creation as a
development process – the impact and influence of networks
and social interaction**

Master Thesis to graduate as MSc in Business, Language, and Culture
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II. Abstract

This Master Thesis is delivered to the Master of Science programme in Business, Language, and Culture at Copenhagen Business School as the final element of the programme. The authors aim at offering a different perspective on entrepreneurial opportunity development: approached through integrating networks, networking, and social interaction. The overarching topics of this thesis are entrepreneurial opportunities and how interaction within an entrepreneurial network and the development process of opportunities influence each other. Through gaining deeper and more sophisticated knowledge of the topic and enriching the knowledge with case studies and thus qualitative data, the researchers are able to unfold a *network model of entrepreneurial opportunity development*. The thesis thus sets out to answer the following research questions: How does an initial entrepreneurial opportunity develop – from the first discovery until the point where organising the venture starts – through social interaction with the entrepreneurial network? And furthermore, how does the structure of the entrepreneurial network develop during the opportunity development process? Finally, how do these two concepts, entrepreneurial opportunity and network, influence and impact each other? Elaborating on and analysing three entrepreneurial partnerships the thesis utilises the case study method to construct the model.

The theoretical concepts and frameworks to date still lack the ability to describe and explain the process of opportunity creation or development from a network perspective or put differently the ability to regard opportunity development as a discovery and creation process depending on social interaction. Although opportunity discovery and/or creation as a process is widely acknowledged in academic circles, the actual development process and its constituting characteristics have only been partly subject to sufficient research. Authors have focused inter alia on the interaction with the environment (Sarasvathy 2001), the influence of the institutional context (Davidsson, Hunter, & Klofsten 2005), the importance of stakeholder networks (Vandekerckhove & Dentchev 2005), the difference between “Solo and Network Entrepreneurs” (Hills, Lumpkin, & Singh 1997), as well as the social context of the entrepreneur (de Koning 2003). In spite of that, a research focus on the impact and influence of networks and social interaction on the opportunity development process is absent. The thesis draws on theoretical perspectives from present entrepreneurial opportunity and network literature (e.g. Alvarez & Barney 2007; de Koning & Muzyka 1999; Evald, Klyver, and Svendsen 2006; Greve 1995; Sanz-Velasco

2006; Sarasvathy 2001; Shane & Venkataraman 2000). As Gartner et al. (2003) state, opportunities are “(...) the result of what individuals do, rather than the result of what they see” (p.110), emphasising action as a crucial element of opportunity creation.

It is further contended that the development process of an initial entrepreneurial opportunity is a non-linear iterative enactment process involving continuous interaction with distinct network members. At the same time the entrepreneurial network is also subject to change and development. While developing the entrepreneurial opportunity the need for motivation, feedback, and input emerges, consequently input is sought from different changing network members and new ties. Both the entrepreneurial opportunity and network run through a development process. Hence, the interaction with people of the network, comprising long term relationships (strong ties), weak ties as well as new acquaintances, provides the basis for the investigation of the development process.

The main finding of this thesis is that entrepreneurs engage in a *mutual enactive dialogue* to develop and eventually enact a business opportunity. In the early stages of a venture (to-be) entrepreneurial action corresponds with enacting and developing an opportunity. The mutual enactive dialogue has two main components, the entrepreneurial network as well as the business opportunity and both components shape and inform each other. The development of information and knowledge for the opportunity and the development of an entrepreneurial network are strongly interrelated. On the one hand it appears that the entrepreneurial opportunity slowly unfolds during a development process, it grows in complexity and sophistication. What might at first have been a simplistically appearing and easily executable concept, is further shaped and fine-grained. On the other hand, a network of strong and weak ties contributing differently to the development process also unfolds and grows. Both the opportunity as well as the network develop from being relatively basic at the beginning to complex and sophisticated towards the end of the process.

1 Introduction

“To have entrepreneurship, you must first have entrepreneurial opportunities.”

(Shane & Venkataraman 2000, p.220)

With their influential paper, Shane and Venkataraman have challenged previous research on entrepreneurship thitherto and established opportunities as the common denominator for research on entrepreneurship, defining it as a field of research that is “concerned with the discovery and exploitation of profitable opportunities” (ibid., p.217). The centrality of opportunities in entrepreneurship research has thereafter been acknowledged by a range of authors in different ways and for varying reasons. A considerable amount of literature has already been published dealing with entrepreneurship and opportunity discovery as well as creation (e.g. Ardichvili, Cardozo, & Ray 2003; Companys & McMullen 2006; Gaglio & Katz 2003; Sarasvathy 2001). Approaching the topic from a variety of perspectives, economic, organisational, sociological or psychological, a large number of these papers are set out to enlighten the black box often associated with opportunity discovery and creation. However, a growing body of literature within the entrepreneurial research calls for further research in the area of entrepreneurial opportunities, often with the background to foster qualitative studies and learning. Universally, Companys and McMullen (2006) contend that “(...) the development of the opportunity construct is critical to the study of strategy and entrepreneurship and has enormous potential to coalesce these fields into a unified conceptual framework” (p.301). Other authors identify more precise issues that they claim need further investigation, “(...) leaving a gap in our understanding of the process associated with opportunity recognition, creation, and exploitation” (Zahra 2007, p.448). Additionally, opportunity discovery and recognition frameworks to date lack the ability to describe how opportunities in relation to broader societal, economic, and political processes are enacted (Fletcher 2006). Building on two gaps in particular, namely the opportunity creation process and the social context (network) the venture to-be is embedded in, this thesis adopts a perspective that is believed to be of a somewhat new nature. The theoretical concepts and frameworks to date still lack the ability to describe and explain the process of opportunity creation or development from a network perspective or put differently the ability to regard opportunity development as a discovery and creation process depending on social interaction. This thesis is, hence, primarily concerned with the development process of entrepreneurial opportunities, from the opportunity discovery till

finalising the business concept, approached through integrating networks, networking, and social interaction, dynamics and influence of people external to the venture are at the centre of interest.

The thesis proceeds as follows. Firstly, the research topic of this thesis is delineated from broader perspectives on entrepreneurship research and the research question as well as preliminary hypotheses are developed. Secondly, the methodology used to gather and analyse the data is described and explained. Thirdly, an extensive review of the existing literature dealing with different views on entrepreneurial opportunities as well as networks and entrepreneurship is presented. On this basis, section four describes, discusses, and analyses three individual case studies. Finally, a cross-case discussion and the recurrent model building is elaborated on, this includes limitations of the present research and model. The thesis closes with concluding remarks and implications.

1.1 Problem identification – The lack of entrepreneurial opportunity research from a networking perspective

The following chapter delineates the topic researched in this thesis. Although opportunity discovery and/or creation as a process is widely acknowledged in academic circles, the actual development process and its constituting characteristics have only partly been subject to research. Authors have focused inter alia on the interaction with the environment (Sarasvathy 2001), the influence of the institutional context (Davidsson, Hunter, & Klofsten 2005), the importance of stakeholder networks (Vandekerckhove & Dentechev 2005), the difference between “Solo and Network Entrepreneurs” (Hills, Lumpkin, & Singh 1997), as well as the social context of the entrepreneur (de Koning 2003). In spite of that, a research focus on the impact and influence of networks and social interaction on the opportunity development process is absent.

Generally speaking, common topics in entrepreneurial opportunity research are cognitive traits influencing the process (Bird 1992; Gartner 1989; Forbes 1999), entrepreneurial opportunities and resources (Alvarez & Busenitz 2001), the typology of entrepreneurial opportunities (Eckhardt & Shane 2003; Holcombe 2003; Sarasvathy, Dew, Velamuri, & Venkataraman 2003), as well as the decision to exploit opportunities (Carter, Gartner & Reynolds 1996; Choi & Shepherd 2004). However, the interaction process and above all the ‘mutual enactive dialogue’ between the entrepreneur (or the entrepreneurial team) and her network have not been subjected to research. Interaction is in this thesis first and foremost treated as a sensemaking and -giving process between the involved

constituencies, thus as frequent conscious and unconscious response experiences where actions and reactions are modified according to the respective partner's actions (Daft & Weick 1984; Weick 1979).

Dubini and Aldrich already in 1991 highlighted the importance of networks for the entrepreneurial process, "Entrepreneurship is thus inherently a networking activity" (p.306). In a similar way, Evald, Klyver, and Svendsen (2006) contend, "researchers traditionally view entrepreneurs as inherently networking people in the sense of building bridges across structural holes" (p.6). Greve (1995) demonstrates the symbioses of entrepreneurship and networks in claiming that "(...) the social context of entrepreneurs where positions and activities in social networks influence the ability of entrepreneurs to acquire and use information or resources that help them establish and manage a business enterprise" (p.1). Research connecting the fields of entrepreneurship and network theory has been conducted for over a decade now (e.g. Greve 1995; Johannisson 1997; Larson & Starr 1993). One aspect, however, that has recently received attention within the entrepreneurship literature has seldom been related to networks: why and how entrepreneurial opportunities develop. Therefore the present thesis is used to research if and how entrepreneurial opportunities are linked to network theory, and in a second step, how the business idea and opportunity is shaped and impacted through interaction with network members. For this purpose a network perspective towards opportunity development is adopted. *This thesis, hence, approaches the process of opportunity discovery and development from a network perspective and eventually tries to reconcile both approaches.* How and with whom do entrepreneurs discuss their ideas? How do entrepreneurs assimilate and react to different opinions and ideas? And finally, in how far does the interaction change and hone the initial idea? Those are crucial questions when looking into the opportunity development process through a network lens.

Different academics have as yet called for research into a combination of elements of network and opportunity. De Koning and Muzyka (1999) propose three dimensions of opportunity discovery for further research: the structure of the social context, characteristics of the cognitive activities, and the process itself. Similarly, Singh, Hills, Lumpkin, and Hybels (1999) call for more research into an entrepreneur's entire social network and the impact on the opportunity recognition process. Also focusing on networks, Vandekerckhove and Dentchev (2005) call for further research into strategic action portfolios to actively engineer networks with the final aim of realising and

developing opportunities. Hence, one can conclude that further research into the opportunity development research is necessary and advocated.

How research on networks and simultaneously entrepreneurial opportunities might be approached can be deduced from present research on entrepreneurial networks. The latter focuses on the environmental context an entrepreneur acts in and thus utilises a network perspective to explain entrepreneurial phenomena (O'Donnell, Gilmore, Cummins, & Carson 2001). Combining opportunity and network research should thus enlighten the process of how and why opportunities, as a central entrepreneurial phenomenon, come into existence. Furthermore, structural studies are far more common than process-oriented studies in entrepreneurial network research, causing a request for more research into the changing contents of network relations by conducting in-depth qualitative studies (O'Donnell et al. 2001). Process-oriented network research takes explicitly the development and evolution of the network over the venture formation process into consideration (Hoang & Antoncic 2003). Here, another facet comes to the front, not only the opportunity, but also the network might be subject to development. Hoang & Antoncic (2003) advocate a more fine-grained approach towards entrepreneurial networks, such as focusing on resource flows or on strategically critical linkages.

The focus of this thesis is hence a qualitative study investigating opportunities from a development process and networking perspective, taking inter alia the above-mentioned claims into consideration. Additionally to the above-mentioned claims, the researchers believe the subject researched of interest to entrepreneurs and academics alike. Going beyond the surface of networks and opportunities should thus contribute to the practice of entrepreneurship as well as to the academic literature.

1.2 Problem assessment

In order to further delineate the objective of the paper, an assessment of the researchers' expectations concerning the outcome of this research is presented in the following section. Following the widespread academic opinion that opportunity discovery and development is a process (see e.g. Alvarez & Barney 2007; Sarasvathy 2001; de Koning 2003), this thesis sets out to investigate how entrepreneurial opportunities and networks develop and at the same time influence and impact each other. How social interaction between the entrepreneur and her network shapes, hones, and redefines an initial venture idea, and thus the development process of an entrepreneurial opportunity as well as of a network is investigated by means of case study research. It is argued that opportunity and network

development have characteristics and processes that can be identified and described. Eventually, a network model of the entrepreneurial opportunity development process will be established.

The thesis thus sets out to answer the following research questions: How does an initial entrepreneurial opportunity develop – from the first discovery until the point where organising the venture starts – through social interaction with the entrepreneurial network? And furthermore, how does the entrepreneurial network develop during the opportunity development process? Finally, how do these two concepts, entrepreneurial opportunity and network, influence and impact each other?

It is further contended that the development process of an initial entrepreneurial opportunity is a *non-linear iterative enactment process involving continuous interaction with distinct network members*. Looking at new venture creation and the development of an opportunity from a process-relational view creates a more accurate and precise picture of the eventual venture formation. Building upon Weick, Sutcliffe, and Obstfeld (2005), it is asserted that venture opportunities are “talked into existence” (p.409). The opportunity runs through a development process, meaning that it is actively developed through social interaction.

At the same time the entrepreneurial network is also subject to change and development. While developing the entrepreneurial opportunity the need for motivation, feedback, and input emerges, consequently input is sought from different changing network members and new ties. Both the entrepreneurial opportunity and network run through a development process. Hence, the interaction with people of the network, comprising long term relationships (strong ties), weak ties as well as new acquaintances, provides the basis for the investigation of the development process. Initially the entrepreneurs mainly seek approval and motivation to pursue their initial idea, but along the way the need for specific input and feedback grows and cumulates towards the end of the development process.

The research is approached through the interaction element between the entrepreneur and her network, as people are expected to be the primary influence that shapes the opportunity development process. This includes the identification and definition of key ties that have significant impact on the opportunity development process and the entrepreneurs’ capabilities to use and exploit their network. Strong ties, such as family members and friends are likely to provide emotional support for the entrepreneur; especially in the early

stage of the opportunity development process strong ties are frequently contacted to provide motivation, approval, and emotional support.

Weak ties or rather weak advisors should provide the most valuable interface for having an influence on the opportunity, as their “use” is to challenge the business idea and push the opportunity further. Hence, weak ties are expected to offer access to information, feedback, and/or resources that have major impact on the opportunity development; entrepreneurs consciously seek feedback and input from weak ties if they are perceived as knowledgeable in a particular area. For new ties or network members, and thus a network expansion, it is expected that the tie has either been established intentionally by the entrepreneur or happened coincidentally and were further intensified to support developing the business opportunity with particular knowledge or competencies. It is also contended that existing network ties take an active role in expanding an entrepreneurs network.

2 Methodology

The following chapter explains and elaborates on the methodology applied to answer the research questions stated in this thesis. In detail, the research strategy and design is described and the choice of the research method is justified. Methodology in general is about choosing the best research approach in order to answer the research question, that is, to build a valid argumentation (Miles & Huberman 1994). Furthermore, the research design (“blueprint of research”) deals with the logical not the logistical problem of the thesis and is thus about choosing the appropriate dimensions and units of the phenomenon to be investigated (Ghauri 2004).

2.1 Research purpose

The overall aim of this thesis is theory building (as opposed to theory testing and thus elaborating on an existing theory); specifically speaking constructing a model of how social interaction within a network influences, defines, and constructs the development process of an entrepreneurial opportunity. Research into entrepreneurship to date reveals both a need for a theoretical explanation of the idea and opportunity development process and a strong focus on the social interaction between the entrepreneur and her network. Keeping in mind that “theories serve as signposts that tell us what is important, why it is important, what determines this importance, and what outcomes should be expected” (Zahra 2007, p.444). And furthermore that “(...) theory provides a framework for critically understanding phenomena; a basis for considering how what is unknown might be

organised” (Silverman 2006, p.14). Insights from diverse existing theories, however, guide and constitute the theory building approach, which is legitimate according to Zahra (2007). Especially entrepreneurial opportunity and network theories frame the research and build the foundation for the theory construction.

A lack of theory in this area has already been identified in the first chapters of this thesis and building a new set of concepts is valuable for approaching a rather new and evolving topic that remains weakly developed (Ghauri 2004). As the literature review will reveal later, existing concepts and theories of the opportunity development process neither fully address the development process of the network that is involved in shaping the opportunity nor the changes to the opportunity that actually occur due to social interaction with pertinent network members. This thesis sets out to research and fill that gap.

2.2 Grounded theory

Testing predefined hypotheses or theories is not an option in this research area, where little is known about the investigated phenomenon. The methodological choice is therefore limited. Nevertheless, certain methodological requirements must be taken into consideration. A coherent methodological framework must embrace a large diversity of data from different sources, while on the other hand providing apt means to assure that new provisional theories or concepts are systematically derived (Miles & Huberman 1994). Interpretative and exploratory methodology, which is receptive to various outcomes, is an adequate process of researching the opportunity development process as a number of different factors and key figures, such as network ties, can have significant yet differing influence on the development process (Yin 2003). Glaser and Strauss’s (1967) grounded theory approach, where data defines new processes and concepts rather than testing existing theories, seems appropriate to research the above-mentioned phenomena. Diverse data, as the different yet distinctive networks of entrepreneurs provide one with, as well as the open-endedness of the research problem support the use of the grounded theory method. The grounded theory method relies on constant comparison of data and emerging concepts and thus produces new conceptual frameworks directly from the emerging data (Eisenhardt 1989). Grounded theory is most useful in situations where the actors make sense of their intersubjective experience (Suddaby 2006), as it is the case with entrepreneurs reflecting upon their ideas and networks. The data derived from the case studies, especially distinct entrepreneurial networks and their impact on the creation of

entrepreneurial opportunities, is thus used to develop and define a new theoretical construct.

2.3 Adopting a case study research design

The research strategy of this thesis is consequently of inductive and exploratory nature utilising the case study method (Yin 2003). A case study research design has been adopted because of its openness to emergent patterns from a variety of sources but with the result of providing systematically derived concepts, hypotheses, and elements of theory. “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin 2003, p.13). Case studies are the most suitable research strategy for “how” and “why” questions focusing on contemporary events and when relevant behaviour of the research object/subject cannot be manipulated (ibid.). More specifically, “(...) one real strength of qualitative¹ research is that it can use *naturally occurring* data to find the sequences (‘how’) in which participants’ meanings (‘what’) are deployed and thereby establish the character of some phenomenon” (Silverman 2006, p.44, emphasis added). Or to put it with Hammersley’s words “a qualitative approach was used because we were dealing with soft issues, which are not amenable to quantification, searching for the meanings which lie behind action” (Hammersley 1992 cited in Jack and Anderson 2002, p.473). The soft issues are hidden in interaction processes between the entrepreneurs and their network. Setting up and expanding a network, interacting within this network, and changing and adapting the entrepreneurial opportunity are ‘soft issues’ requiring an open, receptive, and emergent approach towards them.

A multiple-case study design, treating the cases as a series of independent experiments that substantiate or refute emerging insights by following replication logic, has been applied (Eisenhardt 1989). Multiple case studies are generally applied to compare and replicate the research phenomenon in a systematic way and are consequently regarded as being more robust. However, multiple cases should be used as multiple new experiments not as a sample of units and each case should thus serve a particular purpose (Yin 2003). By the same token, multiple cases should only be selected to create more theory-driven variance and divergence in the data (Pauwels & Matthyssens 2004). In multiple case studies every single case, nevertheless, constitutes a complete study, and only in a second

¹ The terms case study and qualitative research/approach are often used interchangeably (Eisenhardt 1989)

step different case studies are replicated. The number of replications is dependent on the certainty the researcher wants to achieve.

In this thesis three case studies were theoretically sampled in order to compare and replicate the results. Each entrepreneurial venture is the subject of an individual case study, but the research study as a whole covers three ventures and in this way uses a multiple case design. Since both the entrepreneurial teams and the venture ideas differ, three case studies are legitimate to control for different experiences and (educational) backgrounds of the entrepreneurs and for different ventures ideas, which can eventually all have a considerable impact on the network and its influence. Analytic conclusions drawn independently from several cases with different contexts will immeasurably expand the external generalisability of the discovery, as following a replication logic offers more compelling and robust data (Yin 2003). Additionally, a limited body of data deduced from small non-random samples usually makes the analysis more effective and in-depth (Miles & Huberman 1984; Silverman 2006). Thus, three different case studies can control for variance in contexts and networks and by the same token extend the generalisability of the findings. For the opportunity development process, the context and hence the network the entrepreneur evolves in are crucial. Investigating this context, its evolving nature, and the influence the context has on the entrepreneurial opportunity allows for evaluating the impact that distinct events and network ties have on the entrepreneurial opportunity.

2.4 Application of Eisenhardt's "Building Theories from Case Study Research" framework

Eisenhardt (1989) provides a framework consisting of eight consecutive steps for using case study research to build theory. This framework provides a rough guide ("roadmap") for setting up the research in this thesis. In order to follow the reasoning of the research team, the evidence found as well as the procedures used are presented and explained. This is meant for helping the reader to judge the strength and consistency of the research and in particular of relationships found within and across the presented cases that led to model building.

2.4.1 Getting started

At first, an early tentative research question and potential a priori constructs have been defined in order to focus the efforts and to guide the research. Initially, the research focused on 'interaction' from a sensemaking perspective (Weick et al. 2005). However, it became clear that this initial idea was an overly abstract approach that went beyond the

scope of a Master Thesis. Screening of entrepreneurial opportunity literature revealed overlaps with network theory, a perspective that proved more plausible and feasible for conducting a study on interaction. Overall, the research question as well as the possible constructs have shifted several times throughout the process corresponding to a grounded theory approach.

Though the ideal of a “clean theoretical slate” was attempted, it was limited to “avoid thinking about specific relationships between variables and theories as much as possible” (Eisenhardt 1989, p.536). However, as “some reference to extant literature” (ibid., p.536) is allowed, a literature review has first of all been used to identify gaps in the research area and “develop sharper and more insightful questions about the present topic” (Yin 2003, p.9). Secondly, extant literature has been made use of to specify the important variables underlying the research (Eisenhardt 1989; Glaser & Strauss 1967), such as different conceptualisations of network ties.

2.4.2 Case selection

Following Zahra’s (2007) claim that “future studies (about entrepreneurship) can achieve greater rigor and relevance by paying more attention to the context of their investigations” (p.443), three case companies were carefully chosen based on their status and progress in the opportunity development phase and the social context the entrepreneurs and thus ventures (to-be) were acting in. This closely connects to Zahra’s (2007) further proposition that “contextualising our research means the effective linking of theory and research objectives and sites, where research build on the innate qualities of the phenomena they examine” (p.445). In this case, ventures to-be are researched in their active opportunity development phase where social interaction and networking continuously take place and the idea ‘is still in progress’. This grounds the research setting directly in the process that is researched. Ozgen and Baron (2006) argue “that additional understanding of opportunity recognition as a process may well be gained through the collection of prospective data – by asking current or would-be entrepreneurs to describe this process as it actually unfolds rather than they later recall it” (p.189). This, at least to a certain extent, avoids the retrospective meaning people give to their actions.

Studying the early phase of entrepreneurship requires a case analysis where the entrepreneurs have not departed too far from the initial idea phase and where the memory is still fresh, therefore entrepreneurial teams that are still in the process of developing and redefining their opportunities were investigated. Following theoretical sampling, “polar

types” where the phenomenon of interaction and networking was “transparently observable” were chosen (Eisenhardt 1989, p.537). ‘Transparently observable’ refers to the fact that a setting where interaction and networking of (nascent) entrepreneurs was fostered was looked for. Venture Cup (VC), an entrepreneurship business plan competition held in the Nordics that aims to educate about entrepreneurship and at the same time to create university spin-off companies, and therefore gathers and supports a number of new promising ventures each year, was an ideal incubator-like setting. The VC organising committee was contacted and a list of new ventures that were currently working on their business plan for the VC 2007/08 competition provided. Based on that list of eligible units of analysis, each team contacted consisted of at least two entrepreneurs.

Within the natural borders of the setting (participants are business school students, therefore relatively young and well educated), three case studies have been chosen specifically. The first case study, Freeprint, engages already full-time in the venture; the entrepreneurs’ aim is to launch a free-printing service for students at the Copenhagen Business School at the beginning of October. E-Bill, the second case, sets out to implement digitalised receipts in the Copenhagen area; the venture, however, currently faces some major issues and decisions that need to be clarified before moving on. The last case study, Advisor, involves trading and consulting services for pharmaceutical companies. It was the most difficult to research, one of the reasons being that the entrepreneurs seemed to be in disagreement about future steps and goals for the entrepreneurial opportunity.

All case companies consist of teams respectively partnerships of two entrepreneurs, a feature that was expected to increase interaction, both among the entrepreneurial team and their network. Furthermore, diversity in national origin and educational background was aimed for. One team is composed of MSc, one of BSc and one of MBA alumni, whereas one group is Danish, another of international origin, and one of mixed, Danish-international origin. Including diversity within the researched group extended the limits for generalisation of the findings (Eisenhardt 1989).

Additionally, the setting of VC provided the case companies with further possibilities to network and receive expert advice, such as from a jury and coaches. For instance during the different phases of the competition, participants have to submit various drafts of their business plan, furthermore, different workshops with coaches such as consultants or venture capitalists are held where participants can test and challenge their ideas and receive constructive feedback. The very fact of participating in the VC competition hence implies a naturally high level of interaction with different network members over the course of the

competition. These criteria ensure that the case companies are engaged in developing and defining their opportunity (while developing their business plan) – meaning that the opportunity had to be ‘still in progress’ – and that they use networks and social interaction (e.g. Venture Cup) to develop the opportunity. Therefore, it was expected that ventures fulfilling the above mentioned criteria could provide an appropriate population and setting for conducting research.

2.4.3 Crafting instruments and protocols

As commonly done, a combination of multiple data collection methods has been applied. Among the three options – quantitative only, qualitative only, a mixture of both (Yin 2003) – qualitative research has been chosen. As already stated above, qualitative research permits to explore nascent entrepreneurs’ behaviour in developing the opportunity and expanding their network in a real-life context.

The case study design covers and incorporates a variety of different sources of evidence: “The case study’s unique strength is its ability to deal with a full variety of evidence – documents, artifacts, interviews, and observations (...)” (Yin 2003, p.8). Interviews, observations, and archival documents provided by the entrepreneurs have been collected and analysed in this thesis, making use of the twofold advantage of multiple data collection methods: from a methodological standpoint, a stronger substantiation of constructs through triangulation of multiple data collection methods is reached (Eisenhardt 1989). Concerning the content, more reliable information can be collected when documents that show how the pre-organization and opportunity is evolving over the process support the statements of the interviewees, as these are subject to bounded rationality.

Furthermore, as two investigators usually increase the creative potential of the study through complementary insights and enhance the confidence in findings, the interviews have been conducted in teams (Eisenhardt 1989). One researcher mainly conducted interviews while the other was taking fieldnotes and served as an observer. A mixture of two perspectives – consisting of interaction and a more distant view – has been reached that contribute complementary insights. Converging perceptions added to the empirical grounding of the research, whereas conflicting perceptions led to preventing premature closure (Eisenhardt 1989).

2.4.4 Entering the field

Already during the design and research phase concepts and theory were developed and constantly compared with the respective materials (Yin 2003). Following Glaser and Strauss's (1967) incremental grounded theory approach, data collection, data coding, and data analysis took place simultaneously. This overlap is a "striking feature of research to build theory from case studies" (Eisenhardt 1989, p.538).

Collecting and generating data involved several in-depth interviews with the respective entrepreneurial teams. The in-depth interviews followed a non-standardised, semi-structured approach with open questions (Eisenhardt 1989; Glaser & Strauss 1967). Interviews allow for a more authentic understanding of people's experiences when open-ended questions are used (Silverman 2006), thereby offering a unique tool to gather data, "(...) qualitative interviewing when done well is able to achieve a level of depth and complexity that is not available to other, particularly survey-based, approaches" (Bridget Byrne 2004, p.182, cited in Silverman 2006, p.114). The six interviews were conducted in person and lasted from 45 minutes to two hours. The entrepreneur respectively the entrepreneurial team was the focus of the interviews. An interview guide (see Appendix I) with four sections was used to guide the initial interviews. The questions varied slightly from interview to interview, as reacting to different (venture) contexts and personalities required a flexible approach. However, the interview guide served as a guiding principle for the information gathered. The first section involved a short introduction and description of the research project followed by an introduction of the entrepreneurial team, their backgrounds and prior experience, and the venture idea. The intention of this part of the interview was to achieve a solid understanding of the entrepreneurs and their mindset as well as the venture. Afterwards the interviewees were invited to reflect on their initial idea and how and why the idea developed into an opportunity over the last couple of months, providing the core part of the analysis. Key network members involved in these events were identified to gain understanding of the network involved and to evaluate the impact of network ties on the opportunity. Questions were asked during the interviewing process to keep the focus and to further scrutinise the different development steps and network members involved. Questions that were not mentioned and discussed in the second part were then explicitly enquired afterwards, for that purpose a list of fundamental questions was provided in the third section of the interview guide. Section four asked the entrepreneurs for materials that could further corroborate their statements such as business plans, presentations, and communication materials. The aim of the researchers was to

allow the entrepreneurs space to talk. Participants were invited to present their own insights and experiences, which provided the researcher with a deeper picture of opportunity development and network expansion and usage. In particular, it was important to understand the experience, opinions, and ideas of the entrepreneurs. However, a certain level of control in the interaction was maintained, such as listening and producing follow-up questions to complete the picture, opening and closing topics.

All conversations were tape-recorded and transcribed verbatim afterwards. In total seven hours of interviews with six different individuals were conducted (for all transcribed interviews see Appendix II-VII (Data CD)). This was done to facilitate the data collection and consequently the analysis. In order to protect the confidentiality of informants firm names are masked with code names.

Impressions and observations throughout the interview were written down in the form of field notes (Eisenhardt 1989). The notes were used to push thinking, to discover differences in between the cases, and to retain what the researchers were learning, allowing for cross-case comparisons, informal observations, and hunches about relationships with network ties to emerge (Silverman 2006). Debriefings after the interviews took place in the researcher team to share thoughts and exchange observations and impressions, and also to contribute to the overlapping data collection and analysis process. A second round of interviews was conducted to gather missing data and test learning and hypotheses from each case study on the other two case companies, following Eisenhardt (1989) to “probe particular themes which emerge” (p.539). This is a legitimate proceeding referred to as “controlled opportunism” (ibid.) – taking advantage of new themes with the aim to improve resultant theory in a systematic manner.

Desk research and archival records corroborated the transcribed interviews in order to validate the information (Yin 2003). For that purpose, secondary sources such as business plans (for Freeprint and Advisor), a marketing plan (for Advisor), and presentations (for Advisor) have been used to generate data. In one case (Freeprint) a DVD recording of a coaching and feedback session from the CONNECT Denmark pre-springboard panel was analysed, achieving a mixture of direct interviewing and indirect observation. Furthermore, existing theories and academic opinions that are summarised in the literature review supplemented and supported the primary and secondary data. Thus, data collection through multiple sources was conducted to ensure the depth of the research subject (Ghauri 2004).

2.4.5 Analysing within-case data

The data analysis process lies at the heart of theory building. For the within-case analysis, a detailed case study write-up consisting of transcribed interviews and secondary written sources (business and marketing plan) has been formulated to “become intimately familiar with each case as a stand-alone entity” (Eisenhardt 1989, p.540). Each case was analysed and coded and then for each case distinct patterns were established and compared with the hypotheses stated at the beginning of this thesis to determine the degree to which they are consistent (Miles & Huberman 1994). Quotes from the data were applied to categorise the data, to illustrate the theory building process, and to provide valuable supplements throughout the concept development. A matrix highlighting the key patterns was then established (see end of each case study). Following Miles and Huberman (1994), a pattern matching logic has been applied after the data has been collected. Here the findings from the cases under investigation are analysed in order to find the patterns that support the proposed concept and theory building. Or put differently, an empirically based pattern is compared with the predicted one (Yin 2003). As a result, process propositions – relationships between different events – were established.

While at first a description of the case studies was necessary to provide a foundation for the analysis, the within-case data was analysed and compared to the literature in four broad areas: opportunity discovery versus opportunity creation, the development of the network, the different types of network ties involved, and the impact that these different ties exert on the opportunity development. The findings in these areas were later in the discussion compared to extant literature. Particular features that might prove interesting and relevant for answering the research question were singled out and analysed so that unique emerging patterns of each case could accelerate the cross-case comparison.

The data gathered can be looked at in divergent ways. To minimise information processing biases, categories have been chosen and were arranged in form of a matrix. The similarities and differences captured in the matrices were used to cross-case compare the findings (Miles & Huberman 1994). This structured approach was used to go beyond initial impressions and to confirm or disconfirm cross-case similarities. According to Eisenhardt, this improves the likelihood of accurate and reliable theory (a close fit with data) and enhances the probability for novel findings.

However, as new insights were integrated in the emerging concept, the focus of the analysis always returned to the data to probe for inconsistencies or new categories. Returning patterns and certain sets of categories emerged during the analysis process,

which finally provided the concepts and categories for the developed theory (Miles & Huberman 1994). An example is the recurring interaction pattern between the entrepreneurs and their advice circle.

Analytic generalisation, to which previously generated theory provides the template to compare the empirical results of the case study, was then conducted. The validity of the research outcome was tested against the theoretical foundation established in the literature review (Yin 2003). This was done to see if the research contradicts or confirms any existing findings and secondly to put the new findings into perspective. For this thesis the focus was mostly on literature on entrepreneurial opportunity (development) and network theories.

2.4.6 Shaping hypotheses

After the within-case and cross-case analysis tentative relationships between variables emerged, in particular parallels between network and opportunity development. This emergent framework has consecutively been applied to the individual cases in order to test its fit. In an iterative process, a theory has been developed that closely fits the data (Eisenhardt 1989). The definition of constructs was refined and evidence in each case study was used to build up a measurable construct. Each case thereby needs to verify the emergent relationships, following a replication logic (Yin 2003). Some relationships, such as the parallel development of the opportunity and the network, could be confirmed in every case, thus strengthening the construct. However, differences in the networking activity, such as the network ties consulted for feedback, led to a refinement of the theoretical construct. In particular through case study C (Advisor), where networking and network members were less often mentioned – sharing of the venture idea and accepting feedback from others is viewed as weakening the ‘entrepreneurial spirit’ by one entrepreneur –, questions arose. The differences between the case studies are scrutinised in more detail in the cross-case discussion.

2.4.7 Enfolding literature and reaching closure

A broad range of literature from the entrepreneurship and network literature has been considered to compare the emergent concept and conceptual framework of this thesis. Extant literature has been made use of to strengthen the internal validity of the present research, “While linking research to the literature is important in most research, it is particularly crucial in theory-building research because the findings often rest on a very limited number of cases” (Eisenhardt 1989, p.545).

Conflicting findings – such as the changing importance of ties in different stages of the opportunity development process – have been approached as an opportunity to enhance the internal validity and generalisability, forcing the researchers to apply a “framebreaking mode of thinking” (Eisenhardt 1989, p.544), creating deeper insights and sharper limits to its generalisability. These conflicting findings consisted mainly of differences between network activity and openness to feedback from people external to the venture. Literature with similar and complementary findings was then used to relate phenomena that have not previously been associated with one another, especially connecting the creation theory of entrepreneurial opportunities with entrepreneurial network literature.

Reaching closure can be applied to two aspects: the number of case studies and the final product of the research (concepts, conceptual framework, propositions, mid-range theory) (Eisenhardt 1989). The number of cases should theoretically speaking depend on theoretical saturation, that is the incremental learning from adding another case is minimal (Glaser & Strauss 1967). However, pragmatic considerations in terms of time and resource constraints have led to a pre-determined number of cases (Yin 2003). Closure of iteration between data and theory was reached when further research and theorising did not yield any new and relevant results.

The following section elaborates on the extant literature that has been used to build a better understanding of the research field, identify gaps therein, sharpen questions for the data collection and define constructs underlying the data analysis thereafter.

3 A review of entrepreneurial opportunity and network literature

The following literature review elaborates on entrepreneurial opportunities and varying views on how they come to be and how they are constituted – distinguishing two prevalent yet distinct views: discovery and creation (development) of entrepreneurial opportunities. Furthermore, since this thesis sets out to link the development process of entrepreneurial opportunities with entrepreneurial networks, different concepts and findings about entrepreneurial networks are contemplated. As the purpose of this paper is theory building, an a priori theoretical concept is not described or developed but evolves later during the data analysis. The review is thus primarily meant to provide a theoretical foundation for the following case analysis and theory building. Working conceptualisations underlying the present research, hence of the opportunity concept as well as different network ties, are

presented at the end of the respective chapters and are used to guide the successive case analysis.

3.1 Entrepreneurship as a field of (opportunity) research

The field of entrepreneurship research has turned away from its concentration on characteristic traits of the entrepreneur, towards entrepreneurial opportunity discovery as well as development (e.g. Companys & McMullen 2007; Gaglio & Katz 2001). Entrepreneurial activities consist of distinctive actions such as opportunity identification, resource mobilisation, and the creation of an organisation (Shane & Venkataraman 2000). Furthermore, “entrepreneurship involves the nexus of two phenomena: the presence of lucrative opportunities and the presence of enterprising individuals” – the individual-opportunity nexus (Shane & Venkataraman 2000, p.218). Thus, the study of entrepreneurship involves the investigation and analysis of the sources of opportunities as well as the individuals that are engaged in their discovery, evaluation, and exploitation (Shane & Venkataraman 2000). Similarly, Venkataraman (1997, p.120) defines entrepreneurship research as the “examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited”. More specifically, Shane and Venkataraman (2000) define three sets of questions respectively dimensions that describe and delineate entrepreneurship research: “(1) *why, when, and how opportunities for the creation of goods and services come into existence*; (2) why, when, and how some people and not others discover and exploit these opportunities; and (3) why, when, and how different modes of action are used to exploit entrepreneurial opportunities” (p.218, emphasis added). Entrepreneurship, furthermore, is about “(...) cognition, discovery, pursuing market opportunities, and coordinating knowledge that leads to heterogeneous outputs” (Alvarez & Busenitz 2001, p.757), highlighting the extensive range of disciplines covered by entrepreneurship research. This thesis focuses primarily on the opportunity component of entrepreneurship research, the ‘why, when, and how opportunities come into existence’ question.

Zahra and Dess (2001), in a reply to Shane and Venkataraman (2000), assess the extent of their proposed model and suggest an additional fourth dimension in the definition of entrepreneurship: the outcome of an entrepreneurial opportunity and thus a performance dimension. Furthermore, they criticise that the individual-opportunity nexus fails to take into consideration environmental and context forces (such as networks) that can have significant influence and impact on new venture value creation. By the same token, Jack

and Anderson (2002) argue that the entrepreneurial process is characterised by both the individual (entrepreneur) and the context. Similarly, Aldrich and Martinez (2001) argue for an evolutionary approach towards entrepreneurship, and thus for a study of how the process and context interact to form and shape the result of an entrepreneurial activity. This point is also underlined in this thesis; the social context an entrepreneurial opportunity and entrepreneurial action are embedded in has significant influence on the outcome of the entrepreneurial process. The social context has therefore been taken into account in the quest for how opportunities develop.

3.2 Entrepreneurship and its opportunities

Opportunities have increasingly received attention in entrepreneurship literature. In their seminal paper about entrepreneurship Shane and Venkataraman (2000) state that “entrepreneurship is concerned with the *discovery and exploitation of profitable opportunities*” (p.217, emphasis added), thus placing the study of opportunities in the centre of entrepreneurship research. Bygrave and Hofer (1991), in a different way, define an entrepreneur as “someone who perceives an opportunity and creates an organisation to pursue it” (p.14), thus focusing on the opportunity yet explicitly also on the (new) organisation as a result of the process. As a consequence, organising and governing the process of discovering entrepreneurial opportunities is a critical task for the entrepreneur (Hsieh, Nickerson, & Zenger 2007). Different authors (e.g. Hills et al. 1997; Singh 2001; Zahra and Dess 2001) regard opportunity recognition as the first decisive step of the entrepreneurial process, and thus the study of entrepreneurship as a study of entrepreneurial opportunities. Some even go as far as naming opportunity discovery the core issue of entrepreneurship (e.g. Kirzner 1973). Fiet (1996) supports this view asserting that opportunity discovery is elementary for entrepreneurship, as the topic would merely deal with the management of small, newly established firms otherwise. Shane and Eckhardt (2003) provide a discussion of the role of opportunities in the entrepreneurial process, concluding that “entrepreneurship needs to be examined through a disequilibrium framework” (p.346), and further that this “provides researchers with the same general framework to explain many parts of the entrepreneurial process” (p.345). The disequilibrium framework moves away from previous equilibrium theories that seek to explain entrepreneurial activity through differences inherent in people, rather than through the differences in information that individuals possess. This thesis closely follows the disequilibrium approach and claims that opportunity development is at the very heart of

entrepreneurship and that without an opportunity no entrepreneurial process would take place.

3.2.1 *Opportunities seen from an entrepreneurship perspective*

Authors writing about entrepreneurial opportunities often take these opportunities as a given concept and fail to clearly define and delineate the concept of *entrepreneurial opportunity*. A number of authors, though, have published articles about entrepreneurial opportunity discovery and recognition as well as development, and provide one or several definitions of the entrepreneurial opportunity respectively what constitutes it. In a very broad and all-encompassing way, Davidsson et al. (2005) simply call all ‘*venture ideas*’ opportunities, building upon Venkataraman’s (1997) influential paper. Being more specific, Shane and Venkataraman (2000) build upon Casson’s definition from 1982 to define opportunities as “(...) those situations in which *new goods, services, and organising methods* can be introduced and sold at greater than their cost of production” (p.220, emphasis added). Furthermore, “although recognition of entrepreneurial opportunities is a *subjective process*, the opportunities themselves are *objective phenomena* that are not known to all parties at all times” (p.220, emphasis added). Talking about new means-ends relationships instead of new goods, services, and organising methods, Kirzner (1997) delineates an entrepreneurial opportunity from a larger set of opportunities by arguing that the former requires the discovery of new means-ends relationships whereas the latter essentially deals with process optimisation within existing means-ends relationships. These approaches accordingly focus on the individual to define an entrepreneurial opportunity.

Contrarily, a focus on the market side emphasises the *need* for a new ‘product’ in the market, and thus on an opportunity originating in the market. Accordingly, business opportunities are possibilities to create and deliver value for stakeholders in prospective ventures, and thus *value sought* (Ardichvili et al. 2003). “In broad terms, an opportunity may be the chance to meet a market need (or interest or want) through a creative combination of resources to deliver superior value” (ibid., p.108).

Focusing rather on the result of the entrepreneurial process, the *economical argument*, some authors highlight the potential for future profit behind an opportunity. For instance, Fiet (1996) defines entrepreneurial discovery as “an unexpected yet valuable economic opportunity, such as the founding of a new firm, the creation of a new product line, the development of an innovative technology, the satisfaction of an ephemeral market need through arbitrage or the like” (p.419). Breaking down this definition highlights two main

characteristics, the newness of something, either on the individual or market side, and the opportunity to capitalise out of this newness. Thus, a successful entrepreneur not only discovers an innovative product or technology but also realises how to make money out of it. Focusing alike on the profitability argument, Singh (2001) defines entrepreneurial opportunities as feasible and profit-seeking endeavours; thus implicitly allowing for ventures to fail, as long as the venture is feasible which means that it can generally speaking be executed, and as long as it is profit-seeking yet not necessarily profit-making.

Rather focusing on the *nature and origin* of the opportunity, Aldrich and Martinez (2001) emphasise a distinction between innovators and reproducers, contemplating that not all entrepreneurs bring new products, structures, ideas, and processes to industries and markets, but that many entrepreneurs organise their venture in a similar way to already existing predecessors. Some authors go even further differentiating between discovery and recognition of opportunities. Sarasvathy et al. (2003) describe a way to distinguish between opportunity recognition and discovery, which resembles Aldrich and Martinez's separation between innovators and reproducers. Opportunity recognition describes the process where existing technologies and existing markets are combined in new and different ways, the opportunity is deducted ('reproducers'); discovery on the other hand refers to a process where only one of the variables is given and the opportunity is inducted ('innovators')². Additionally, researching opportunity discovery and recognition also requires distinguishing between recognition within an existing firm and corporate venturing as well as recognition of new profit potential through forming a new venture (Singh et al. 1999). This thesis focuses solely on the later, exploitation of an opportunity, through forming a new organisation.

In an attempt to provide an overarching typology of opportunities, Compans and McMullen (2007) argue that "(...) an *entrepreneurial opportunity* is more accurately described as an opportunity to engage in *entrepreneurial action*, in which entrepreneurial denotes a sub-class of some broader category of human action" (p.303, emphasis in original) and that the authors "conceive of an opportunity as a situation that promises the potential for profit" (p.302). Here the focus is on the entrepreneurial action and not purely on new means-ends relationships, the economical argument plays, however, still a decisive role. Entrepreneurial action is generally speaking understood as the action an entrepreneur engages in to bring about a new organisation (or as Compans and McMullen claim, a new

² Since this thesis is mainly concerned with the development process of entrepreneurial opportunities the terms 'discovery' and 'recognition' are used interchangeably.

way of generating profit). Accordingly, Companys and McMullen (2007) identify three different ‘opportunity schools’. The economic school assumes that opportunities simply exist because of fundamental differences in economic information and can be systematically discovered and exploited via processes of search, learning, and innovation. This resembles Shane and Venkataraman’s as well as Fiet’s approach, focusing on individual, market, and, economic variables. Contrarily, the cultural cognitive school believes that interpretive processes and the creation of new social definitions are necessary to discover and exploit opportunities, as these are subjective in nature. Through social interaction entrepreneurial opportunities are defined and enacted. The socio-political school takes up the stance that “opportunities (...) exist objectively in terms of social network structures, but social actors must mobilise network resources to exploit them” (Companys & McMullen 2007, p.306). Opportunities are thus not necessarily discovered but rather enacted (Weick 1979).

Similar to the socio-political school, Alvarez and Busenitz (2001) distinguish between entrepreneurial and expert knowledge, the expert is the one possessing the specific specialised knowledge and expertise, *the specific knowledge bearer* embedded in a network, the entrepreneur, however, is the person who recognises the value of the expert’s knowledge and has the ability to organise the specialised knowledge through his network. By the same token, Kirzner (1973) contends that the entrepreneur hires the specialist to capitalise on the latter’s knowledge. *Organising specialised knowledge* through social interaction in networks, communication, and enactment is thus one of the entrepreneur’s major abilities and leads to opportunity discovery and development.

Accordingly, in this thesis an *entrepreneurial opportunity* is defined as the discovery of new means-ends relationships through social interaction that can eventually lead to entrepreneurial actions and thus a development and enactment process.

In the following chapter the core discussion surrounding current opportunity research is debated, whether opportunities simply exist out there (opportunity discovery) or whether opportunities are created.

3.2.2 *Entrepreneurial opportunities are discovered*

The ‘opportunity discovery school’ (e.g. Casson 1982; Kirzner 1997; Shane 2000 and 2003; Shane & Venkataraman 2000) contemplates that opportunities exist independently of entrepreneurial action and need to be discovered and exploited as objective phenomena. The ‘individual-opportunity nexus’ explained above has this notion of entrepreneurial

opportunity at its centre. Generally speaking, the discovery theory deals with two major concerns, the *nature of opportunities* and the *nature of entrepreneurs* (Alvarez & Barney 2007). As such it requires entrepreneurs to process and re-combine new and old information; information asymmetries play a decisive role in the discovery perspective (Kirzner 1997). Entrepreneurs are more alert than non-entrepreneurs and thus able to discover opportunities, the cognitive component of the discovery school (ibid.). Hence, systematic differences, such as informational or cognitive, explain why entrepreneurs discover opportunities and non-entrepreneurs do not (e.g. Alvarez & Barney 2007; Casson 1982; Kirzner 1997; Shane 2003).

A number of researchers following the discovery perspective have investigated how and why entrepreneurial opportunities occur, often with a focus on *economic variables*, thereby establishing the basis for the opportunity discovery school. A variety of disequilibrium states have been identified to classify the origins of opportunities. Schumpeterian opportunities (e.g. Schumpeter 1934; Shane 2003) can be divided into three disequilibrium states, due to (1) technological, (2) political and regulatory, and (3) social and demographic change. Building onto this and approaching the issue from a discovery perspective opportunities arise when either (1) factors disequilibrate the market, or (2) factors enhance production possibilities, and/or (3) prior entrepreneurial activity is existent (Holcombe 2003). Being even more specific, Drucker (1985) differentiates between three different categories of opportunities arising from economic disequilibria: new information, market inefficiencies, and changes in relative costs and benefits of resource exploitation. Following Kirzner (1973), economic disequilibria and thus possessing knowledge and information (or more specifically expectations, beliefs, awareness, and knowledge) that others do not possess enables entrepreneurs to recognise and exploit opportunities. Information is consequently ephemeral and thus only one entrepreneur might profit from it (Fiet 1996). Sources of information, e.g. networks, can play a decisive role for the recognition of opportunities. In a similar way, Shane and Venkataraman (2000) define two categories that have an impact on the propensity to discover an opportunity: *prior information and cognitive properties* (especially alertness). Dew, Velamuri, and Venkataraman (2004) support the individual-opportunity nexus and the role of prior knowledge and contend that idiosyncrasies of individuals significantly influence the formation of markets and firms.

In a similar way, Hills (1995) considers opportunity discovery as a one-time experience that ‘simply’ occurs, and except for a *general alertness* individuals can hardly

control the occurrence of opportunities. Thus, an element of surprise is involved in the opportunity discovery (Kirzner 1997). Gaglio and Katz (2001) also claim that entrepreneurial alertness is the cognitive concept driving the opportunity identification process. Entrepreneurial alertness is defined as “a distinctive set of perceptual and cognitive processing skills that direct the opportunity identification process” (Gaglio & Katz 2001, p.96) and thus mirrors a “motivated propensity”. Similarly, Kirzner (1997) describes opportunity recognition as unintended but motivated, “without knowing what to look for, without deploying and deliberate search technique, the entrepreneur is at all times scanning the horizon, as it were, ready to make discoveries” (p.72), she is alert to potential opportunities.

Shane (2000) provides an overview of the above-mentioned arguments and classifies them into three different approaches towards explaining the discovery of opportunities. Neoclassical equilibrium theories (e.g. Khilstrom and Laffont 1979) state that everyone can discover any potential entrepreneurial opportunity and that only personal attributes affect who becomes an entrepreneur. By the same token, psychological theories (e.g. Gaglio & Katz 2001; Shaver and Scott 1991) argue that the propensity to discover an entrepreneurial opportunity is based on fundamental attributes of people and on the ability and willingness of people to take action. From an Austrian economics point of view opportunity discovery “is the carrying out of new combinations” (Schumpeter 1971 cited in Fiet 1996, p.420). However, the discovery of opportunities depends on the distribution of information in society (Kirzner 1973) and fundamental attributes of people do not play a crucial role. All three schools rather advocate opportunities that are discovered because of individual and cognitive propensities, whereas another string of entrepreneurship literature promotes the view focusing on the active search component inherent in the opportunity discovery.

Fiet (1996) is a strong advocate of the *active search process* where the acquisition of information is at the centre. He argues that signals as transmitters of information can significantly reduce the risk associated with the creation of a new venture (p.423). Similarly, Bird (1988) argues that cognitions of an entrepreneurial opportunity may come to an entrepreneur as vague, not yet fully described feelings where they have to search for the eventual opportunity. Defining entrepreneurship as “the process of first, discovering, and second, acting on disequilibrium opportunity”, Kaish and Gilad (1992, p.46) work with the same underlying assumption that opportunity discovery is an active process and as such involves the active search for information. Comparing opportunities search of

entrepreneurs and executives, Kaish and Gilad (1991) come to the conclusion that entrepreneurs are generally speaking more alert and exposed to new information and that they tend to search at less obvious places and make use of unconventional sources, such as off-hour or through family and personal friends.

Casson (2005) in a critique of Shane (2003) highlights that “entrepreneurial activity depends upon the *interaction* between the characteristics of opportunities and the characteristics of people who exploit them” (p.424, emphasis added), thus emphasising the objective as well as subjective nature of entrepreneurial opportunities. Casson’s view implicitly indicates that opportunities might not simply be discovered but that a process component involving interaction is involved, which then leads to the creation perspective.

3.3 Opportunity creation perspective or the development process of opportunities

Contrarily, several authors have looked at opportunity discovery and development as a creative and social process, thus as a process-driven development of opportunities (e.g. de Koning & Muzyka 1999; Fletcher 2006; Gartner; Carter, & Hills 2003; Sanz-Velasco 2006; Sarasvathy 2001; Sarasvathy et al. 2003). In this understanding of entrepreneurial opportunities, “entrepreneurs do not recognise opportunities first and act then; rather, they act, wait for a response from their actions – usually from the market – and then they readjust and act again” (Alvarez & Barney 2007). Enacting the opportunity is at the heart of this perspective (Weick 1979) and entrepreneurs rarely see “the end from the beginning” (Alvarez & Barney 2007, p.7). As Gartner et al. (2003) state, opportunities are “(...) the result of what individuals do, rather than the result of what they see” (p.110), emphasising action as a crucial element of opportunity creation. Knowledge of potential opportunities is created by acting, interpreting the responses to action, incorporating the learning, and then acting again (Choi 1993). Acting based on a gut feeling might trigger the establishment of a new venture by enacting a suitable environment (Hill & Levenhagen 1995). Differences between entrepreneurs and non-entrepreneurs are not pre-existent, rather they emerge during the process of creation (Sarasvathy 2001). The decision making process is of incremental and iterative nature with a focus on remaining flexible and able to incorporate learning (Alvarez & Barney 2007).

Looking at opportunity creation from an *enactment and effectuation perspective*, what Mintzberg and Waters (1985) call emergent strategy formulation, means to be open to a cluster of opportunities that can be achieved with a predefined set of means, and thus to look at opportunity creation. “Effectuation processes take a set of means as given and

focus on selecting between possible effects that can be *created* with that set of means” (Sarasvathy 2001, p.245; emphasis added). Entrepreneurs start by looking at their given and available set of means, this implicitly includes their affordable loss, and then in a step-by-step approach come closer to an opportunity. Instead of choosing between different alternatives, the alternatives are generated (Sarasvathy 2003). According to Weick et al. (2005) materialising meanings, and hence enactment and effectuation, is first and foremost a process involving language, talk, and communication, thus following this logic one can conclude that “situations, organisations, and environments [entrepreneurial opportunities] are talked into existence” (p.409).

Similarly, contingencies along the (development) way can be used and exploited to change direction and/or shape and redefine an initial idea or opportunity (Sarasvathy 2001), and contingencies often evolve through interaction. Continuous interaction between the entrepreneur, her ideas, and the aspirations of stakeholders contribute to the creation of a market. As a result of interaction with the environment the venture ideas goes through an evolutionary as well as revolutionary process. In a similar way, Gartner, Bird, and Starr (1992) claim that entrepreneurship is a process of emergence. They argue that “the formation of an organisation is fundamentally an enacted phenomenon, a particular form of a socially constructed reality” (ibid., p.15).

Researching the *activity profiles* of nascent entrepreneurs – individuals taking steps to start a new venture – Carter et al. (1996) discover three distinct activity profiles. Nascent entrepreneurs who managed to start a business are characterised as pursuing the *enactment of an opportunity* more concentrated and aggressively, whereas nascent entrepreneurs who gave up were ‘wise’ enough to test their idea or to find other more creative ideas. The authors are concluding that *activities matter* and that thus a more active, aggressive, and short-term approach increases the probability of being entrepreneurially successful; enactment of opportunities is crucial for their argumentation. Furthermore, they advocate research into how entrepreneurs make judgements and evaluations about potential success of a new venture. This thesis follows their call and probes into the development of an opportunity, and how acting and action influence the development path of an opportunity.

Following an enactment and interaction perspective, Davidsson et al. (2005) investigate the impact of institutions on the venture idea, thus linking institutional theory and opportunity discovery. They find out that external pressure from for instance customers or investors influences the development of a venture idea. A change in the initial venture idea accommodates institutional pressure thereby gaining legitimacy and

sovereignty. Arguing that institutional theory can be used to understand why and how venture ideas change over time, the authors develop a row of hypotheses encouraging researchers to investigate the effective changes to the initial venture idea that occur due to external pressure respectively the institutional context. The context and network in which the opportunity develops is highlighted. Similarly, the entrepreneur can construct specific relationships and networks that beneficially extend the venture to-be's notice and influence among important network members (Chiasson & Saunders 2005).

Furthermore, different authors (e.g. Bhavé 1994; de Koning & Muzyka 1999; Vesper 1989) state that an entrepreneurial opportunity runs through a *development process* of unpredictable and multi-staged nature. The initial venture idea runs through a nonlinear process after which the entrepreneurial opportunity that becomes the foundation for a successful new venture can be significantly different from the initial idea (Klofsten 2005). "As the process unfolds, venture ideas transform iteratively from vague notions of how to fulfil a market need to clearly defined business concept" (Davidsson et al. 2005, p.1). Similarly, Fletcher (2006) states that "building a business and identifying a market opportunity is, then, a relational activity characterised by multiple acts and supplements" (p.433) and thus a process. Bhavé (1994) describes an iterative, nonlinear, feedback-driven, conceptual and physical process of new venture creation. An important part of Bhavé's model is what he calls "massaging of ideas" where entrepreneurs refine and hone the initial idea (p.229). The crucial question of how those ideas are 'massaged', however, is not answered. One example of refinement of the business concept occurs through interaction with customers and thus through the network the entrepreneur is embedded in. Contrarily, de Koning and Muzyka (1999) propose that the opportunity development process is linear, i.e. starting with certain activities and continuing with interaction, though it potentially returns iteratively to activities and groups as needed and thus can be depicted as a linear process with consecutive feedback and refinement loops. Vintergaard (2006) describes the process of opportunity recognition or discovery as 'passageways', highlighting the emergent and developing nature of these opportunities. Furthermore, he elaborates that multiple actors might be involved in the discovery process, "The passageways are formed by exchange of information and resources between key actors of which corporate venture capitalists only constitute one group" (Vintergaard 2006, p.136). He elaborates further, that analysing opportunities in the light of a single entrepreneur "neglects the fact that the process often includes many actors and that it is equally

important in established organisations and for venture capitalists” (p.138), indirectly arguing for a network perspective on the opportunity development process.

De Koning and Muzyka (1999) state that opportunity development describes the process of opportunity recognition over time. In their research, entrepreneurs often described the process as lasting for 3-4 years. Carter et al. (1996) come to a different conclusion, arguing for an average timeframe of one year. Thus, there seems to be contradicting results about the length of the process. Investigating the length of the process, Choi and Shepherd (2004) elaborate on the question whether an opportunity should be exploited right away and thus the lead-time maximised, or whether the exploitation should be delayed to reduce uncertainties, build management capabilities and ensure stakeholder support. They conclude that entrepreneurs are more likely to exploit opportunities when the knowledge about customer demand is sufficient, the technology developed, managerial capabilities established, and stakeholder support ensured. These variables thus influence the length of the development process. This supports the argumentation that through social interaction the entrepreneurial opportunity is created and gains shape as well as legitimacy.

Claiming that opportunities are made not found, Ardichvili et al. (2003) advocate a focus on opportunity development instead of recognition; a perspective elaborating on both the enactment as well as the process view towards opportunity creation. Exploring the opportunity development process, the authors state that opportunities – venture ideas – transform iteratively from vague notions of how to fulfil a market need to clearly defined business concept. In the opportunity development process, the entrepreneur engages in creating a clear business concept, a vision of the venture to-be (de Koning & Muzyka 1999). The development process is a continuous, proactive process essential to the formation of a business, which includes the recognition, evaluation, and development of the opportunity and ends with a clearly defined business concept. With the aim to overcome the weakness of simply looking at different yet distinct parts of the opportunity development process, Ardichvili et al. (2003) develop a multi-layer process model of the opportunity identification and development process.

3.3.1 Reconciling the discovery and creation perspective

While a discussion over the prevalence of either discovery or creation of opportunities persists, an increasing number of researchers have recently found ways to merge both perspectives. Alvarez and Barney (2007) elaborate on different situations and contexts,

what they call “informational settings” (p.13), when either the discovery or the creation theory applies. According to their findings, under moderate uncertainty and risk combined with prior knowledge the discovery theory applies, whereas under conditions of high uncertainty and no pre-existing knowledge the creation theory fits better. Furthermore, they admit that a mix of both theories might apply under some conditions. Chiasson and Saunders (2005) follow their last argument, stating that the two perspectives are not mutually exclusive but that structuration theory (duality of structure) can reconcile both approaches. The entrepreneurial opportunity occurs from doing things differently and thus changing a script. Similarly, Sarasvathy et al. (2003) set out to construct an overarching framework including both creation and discovery, combining three different perspectives and modelling “an entrepreneurial opportunity as a function, or a process of decisions, respectively” (p.143).

The socio-political school of entrepreneurial opportunities also tries to reconcile both approaches, arguing for objectively existing opportunities that need to be developed through social interaction (Companys & McMullen 2007). Companys and McMullen also state that “these views [subjective and objective views towards entrepreneurial opportunities] complement and strengthen one another” (p.316). Baron and Ensley (2006) support this view by arguing that opportunities come into existence through market, knowledge, or technological changes (thus exist objectively) but that a human mind needs to come across them (in a subjective cognitive process). This thesis follows a reconciliation approach as explained in the next chapter.

3.3.2 *The approach towards entrepreneurial opportunities underlying this thesis*

This thesis supports the two-pronged model where opportunity discovery and creation are not mutually exclusive but collectively exhaustive (e.g. Companys & McMullen 2007; Sarasvathy et al. 2003), thus an initial venture idea and/or opportunity needs first to be discovered and can then be developed and redefined (or differently speaking the full value is recognised during a development process), embracing the emergent nature of an entrepreneurial opportunity. For delineating the concept of entrepreneurial opportunity the socio-political school (Companys & McMullen 2007) is consulted here; opportunities exist objectively ‘out there’ (embedded in existing structures) but engaging in *networking activities* and *social interaction* is necessary for an entrepreneur to fully understand an opportunity and thus to be able to develop and eventually exploit it. As a result of (inter-) action the opportunity develops, it slowly unfolds; reorientations and adaptations of the

initial idea are frequent (e.g. Bhawe 1994; Davidsson et al. 2005). Companys and McMullen (2007) identify at least two different ways of discovering an opportunity, either through resource and capability development or through reconfiguring social networks. However, this thesis argues that these two ways are also not mutually exclusive as networking is a means to acquire resources for the development of the opportunity; instead a comprehensive approach analysing the opportunity discovery as a process of social interaction from complementing perspectives – from resource and capability development as well as from a networking perspective – is advocated. As a consequence, *opportunity development* is not a one-time ‘Eureka!’-event, where the venture idea crystal-clearly occurs to an entrepreneur, but it is rather a subjective recognition process where the final opportunity evolves through social interaction (e.g. Sarasvathy 2001). The following chapters elaborate further on the connection between networks and entrepreneurial opportunities.

3.4 Entrepreneurial opportunities and networks

Network analysis is used in this thesis to uncover and investigate how social structure and actions influence the opportunity development phase. As briefly elaborated on before, opportunities exist or ‘hide’ in complex webs of social relationships that regulate economic action (Companys & McMullen 2007; Granovetter 1985). Thus, embedded in network structures the opportunities ‘wait’ to be enacted. Ambiguity and uncertainty in the environment are predominant, requiring the ability and knowledge of social actors such as entrepreneurs to mobilise network resources through social activity and interaction to minimise and deal with ambiguity and uncertainty and to consequently discover and enact or develop an entrepreneurial opportunity (cf. Brüderl & Preisendörfer 1998). Likewise, Fletcher (2006) contends that the emergence of an opportunity is embedded in particular social, cultural, and economic structures. Opportunities are always “also an expression of relationship to the culture, society, and the institutions (of capitalism, family, market economy, enterprise discourse) in which they have been produced” (ibid, p.433), where “being embedded [the entrepreneur in this case] in the social structure creates opportunity and improves performance” (Jack & Anderson 2002, p.467). This occurs through bridging structural holes and filling information gaps.

3.4.1 The relationship between networks and entrepreneurship

Networks are “patterned relationships between individuals, groups, and organisations” and consequently enacted by their participants (Dubini & Aldrich 1991, p.305). Generally

speaking, a network consists of a series of direct and indirect ties from one actor to a collection of other actors, and thus main components of a network are nodes and connections (O'Donnell et al. 2001). Network structure is the pattern of direct and indirect ties between actors (Hoang & Antoncic 2003). Researching networks then is the understanding and analysis of interconnections and relationships between different actors and units. Network researchers traditionally regard entrepreneurs as networking people who build bridges across structural holes (Evald et al. 2006), where structural holes are missing ties between actors (Burt 1992). Bridges are network links that connect two otherwise unconnected subgroups and consequently the number of bridges increases information diversity within a network (Greve 1995).

Two main benefits of networks are constantly earmarked in the entrepreneurship literature: access to *resources and to information* (e.g. Greve 1995; Jenssen & Koenig 2002). Studying networks in the light of entrepreneurship is thus also the study of “how social relations and structures facilitate the diffusion of resources necessary to establish firms” (Greve 1995, p.2). Network characteristics influence the availability, timing, and quality of information access (Arenius & Clercq 2005). While a network of social relationships provides an entrepreneur with goodwill and resources (material and financial), two other benefits emanating from the network are particularly important according to Arenius & Clercq (2005): information and influence (cf. also Adler & Kwon 2002). O'Donnell et al. (2001) list information sharing, extending the range of contacts, introductions to business associates, motivation, support, and encouragement, providing self-confidence, and providing product and service ideas as some of the advantages of networks. Relationships might also have a reputational and signalling function (Hoang & Antoncic 2003) and moreover provide social legitimacy (Klyver & Hindle 2007). The importance of social capital and diverse network ties is further highlighted by Aldrich and Martinez (2001), stating that it enables entrepreneurs to obtain critical resources such as knowledge, capital, clients, and access to suppliers. Consequently, through different transactions with members of their (social) network, entrepreneurs gain access to resources and thus identifying and managing these action sets is an essential step for developing an opportunity and creating a new venture (Hansen 1995). Social capital is then the value generated by peoples' social networks (Burt 1992).

Especially for entrepreneurs “business know who” seems to be a very important component for success (O'Donnell et al. 2001, p.752). Davidsson and Honig (2002) advise entrepreneurs to develop and promote “networks of all sorts, particular interfirm and

intrafirm relations”, to assist the founding and development process (p.303). Furthermore, the position of an entrepreneur in a network has important implications for his ability to enact opportunities and acquire resources (Hoang & Antoncic 2003). While gathering resources, the entrepreneur is seeking, receiving, and processing information from his network that contribute to the opportunity development (Learned 1992). Furthermore, networking is a skill that can be learned like any other skill, it involves making contacts, building relationships, and activating linkages (Dubini & Aldrich 1991).

As shown above, acquiring resources, knowledge, and information are the common denominators mentioned in most of the research papers investigating the connection between networks and entrepreneurship. Entrepreneurial network research assumes that the people an entrepreneur interacts with affect the entrepreneurial endeavour, as various relationships provide rich yet distinct resources. As such, network research has three advantages, it is a dynamic construct focusing on interaction, it looks into exchange processes, and it takes the environmental context into consideration (O'Donnell et al. 2001). In order to acquire resources the number of contacts (size and density), the background of contacts (diversity), how vigorously entrepreneurs use their networks (time spent on developing and maintaining), and network characteristics (availability of indirect contacts and bridges) play an essential role (Greve 1995).

3.4.2 The strength of ties or how resources and knowledge travel

As the previous part has shown, unique social networks, with abundant weak ties and social interaction, provide entrepreneurs with substantial exposure to diverse, unusual, and different ideas, information, and resources. Social interaction within a network allows an entrepreneur to accumulate the necessary and sometimes rare information and resources – also referred to as bootstrapping of resources (Alvarez & Busenitz 2001). Hills et al. (1997) base their research on the argumentation that due to weak ties (Granovetter 1973) and structural holes (Burt 1992) entrepreneurs with extensive networks have much higher chances of obtaining information about a valuable venture opportunity. Thus, the structure and quality of a social network might be determinants of the opportunity discovery and development capabilities of an entrepreneur.

Granovetter (1973) defines the strength of a tie as “the (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterise (a) tie” (p.1361, parentheses in original). The amount of strong ties a single individual can have is nevertheless limited due to high

maintenance costs. However, the number of weak ties is not restricted, as actors do not engage with them on regular basis (Granovetter 1973).

The discussion in the entrepreneurial network literature circles around the implication and importance of strong and/or weak ties for new ventures and opportunity development (e.g. Evald et al. (2006); Hoang & Antoncic 2003; Jenssen & Koeing 2002). Brüderl and Preisendörfer (1998) argue that “information received from network ties (strong and weak) is often *assumed* to be more useful, reliable, exclusive, and less redundant” than information from formal sources (p.214, emphasis added).

Granovetter, in his early work (1973), advocates that weak ties provide greater access to information and a greater opportunity to spread information, since they are providing non-redundant information, whereas strong ties are rather used for acquiring resources and support. A weak tie thus provides maximum impact (Krackhardt 1992). The argument here is that weak ties are more likely to act as bridges and thus enlarge and enhance the information flow within a network, whereas among strong ties similar information or same sources of information often provide already known information. Close contacts might not always be able to provide necessary resources or information and therefore it may be necessary to establish new contacts or access contacts that are contacts of already existing contacts (Greve 1995).

However, some information might be very sensitive and will not emerge through interaction with weak ties (Krackhardt 1992). Sensitive information might only be shared with and acquired through network members that are very close – hence strong ties. Furthermore, emotional support and encouragement mainly emanates from strong ties, whereas weak ties help to bridge social capital and thus carry the start-up process of a new venture further (Davidsson & Honig 2002).

Low network redundancy provides entrepreneurs with necessary information and allows them to combine resources from non-redundant ties (Jenssen & Greve 2002), where redundancy indicates the degree of overlap between different contacts and ties. Burt (1992) argues that low network redundancy increases the information amount and flow within a network and that thus not the strength of a tie is important but the cohesion and diversity of a network. However, different authors have challenged the redundancy theory, for instance Larson and Starr (1993) content that long-term relationships are necessary to provide other resources than information. This leads to the assumption that “simple measures as the number and strength of ties are important for entrepreneurial success, not redundancy as Burt (1992) argues” (Jenssen & Greve 2002, p.257).

Disagreement obviously exists over the importance and influence of strong and weak ties. Arguments that back up both sides in the discussion over strong and weak ties can be found in the existing literature. Uzzi (1996) therefore contends a balanced approach, which he sees in a balanced network consisting of a mixture of both strong and weak ties (cf. Dubini & Aldrich 1991). Similarly, Jenssen and Koenig (2002) conclude that entrepreneurs should use their contacts regardless of the strength of the relationship to search for necessary resources.

Evald et al. (2006) in their critique of the entrepreneurial network literature dealing with strong and weak ties, however identify a shift from the dichotomy discussion around the strength of ties towards the development process of networks over the entrepreneurial process (see also 'Different entrepreneurial phases and their relation to opportunities and networks'). Their findings indicate that different operationalisations of what constitutes strong and weak ties exist depending partly on the part of the entrepreneurial process the respective research paper investigates. Great ambiguity exists in the literature over what constitutes a strong and a weak tie and even Granovetter's seminal papers (1973 & 1985) do not provide a clear definition of these terms. Evald et al. (2006) elaborate on the divergence of definitions and usage of the tie concept within the entrepreneurial literature and present different continuums of the concepts applied. Consequently, the authors call for an explanation of the distinct terms used in entrepreneurship research.

Granovetter (1973) originally distinguished between friendship (strong ties) and acquaintance (weak ties). However, examples of further operationalisations include separating between friends, strong advisors (strong ties) and weak advisors (weak ties) (Krackhardt 1992), between spouse or life-partner, parents, friends, and relatives (strong ties) and business partners, acquaintances, former employees and co-workers (weak ties) (Brüderl & Preisendörfer 1998). Larson and Starr (1993) make the interesting separation between social and affective ties (strong) compared with economic and instrumental ties (weak) as well as going even further by additionally distinguishing between prior business contacts and newly established ones. Johannisson et al. (1994) base their definition on the frequency of interaction, which is the time spent to discuss different issues. Relations of trust are strong ties, and thus relations an entrepreneur can count on, whereas casual acquaintances are weak ties having little emotional investment in the entrepreneur (Dubini & Aldrich 1991). Johannisson (1997) found out that what at first were merely business ties (strong) often developed into social ties (weak) as the opportunity develops.

As elaborated on before, the concept of strong and weak ties has various conceptualisations within the entrepreneurship literature; the final concept for this thesis will evolve during the case analysis and concept building. However, for the purpose of a first clarification this thesis works with simple measures such as frequency of contact and strength of tie to investigate the impact of network members on opportunity development. As the discussion above revealed, simple measures seem to better catch the relevance of network members (cf. Jenssen & Greve 2002). Every existing or new person within a network is considered a tie, they are however further defined by two conceptualisations of tie classifications that guide this research as these are seen as complementary. Krackhardt (1992) operationalises strong and weak ties into friends, strong advisors (strong ties) and weak advisors (weak ties). “I will distinguish between two types of strong (that is, frequent) ties: a network of advice interactions stemming from routine work problems and a network of philos [a concept he develops to define ‘friends’] relationships (...)” (Krackhardt 1992, p.221). Key players within an advice network are not necessarily the same as in the friendship network. Interaction within a network then “creates opportunity for the exchange of information, some of which may be confidential” (Krackhardt 1992, p.219). This distinction partly resembles Koning and Muzyka’s (1999) distinction between the inner circle, the action set, and weak ties. De Koning and Muzyka *separate strong ties into the entrepreneur’s inner circle, action set, and partnership*, arguing that a more subtle distinction mirrors the reality better.

The *inner circle*, a new distinction made by the authors, consists of long-term stable relationships whom the entrepreneurs discuss most if not all of their ideas with. High information sharing and close proximity are the main characteristics of the inner circle. The membership is not based on resource commitment, rather solely by the intensity of the relationship. It stays relatively stable over the opportunity development process and is characterised by frequent information sharing.

Hansen (1995) defines *action sets* “as those sub-sets of the entrepreneurs’ total networks whose members shared the entrepreneur’s intentionality by contributing information and other resources important to the entrepreneur’s start-up” (p.16). For that purpose he elaborates on three characteristics of the action set: size, degree, and frequency. Action set size may vary, yet larger sets are correlated to greater success. Degree measures how well people within an action set know each other and how well they are therefore able to interact. A higher degree allows for more communication and thus for easier information exchange and other transactions. The frequency of communication and

interaction is positively correlated with the respective task to be accomplished. Hansen's (1995) findings indicate that the structure and process of an entrepreneurial action set influence the venture's performance. De Koning and Muzyka (1999) further add that action sets are not simple resource providers but resemble intense and continuing relationships during the development process.

The *entrepreneurial partnership* copes with the fact that one-third of all ventures involve more than one entrepreneur (this thesis researches only partnerships). An entrepreneurial partnership is a uniquely close partnership, the first and closest level of the network. Often partners are complementary in their skills and styles and the relationship is a long-term, high commitment relationship. However, de Koning and Muzyka (1999) make the claim for more research into role and relationship of partners within the opportunity development process.

It is further assumed that the composition of one's network and the ties involved are emergent. Furthermore, overlap might occur between different ties and some statuses of members might change over time (cf. de Koning & Muzyka 1999).

3.4.3 *Networks and opportunity development*

"We need to move away from considering the entrepreneur in isolation and look at the entrepreneurial process [in order to understand how entrepreneurial opportunities are created]" (Jack & Anderson 2002, p.467), moving away from an isolated entrepreneur shifts the focus towards networks and the social context an entrepreneur is embedded in. Information about untapped markets and resources are crucial to identify hidden opportunities (Dubini & Aldrich 1991). Social capital and networks assist entrepreneurs during the opportunity development phase by exposing them to a wide range of different views, ideas, and information (Davidsson & Honig 2002). Due to networking, feedback mechanisms and loops begin and lead to potential reorientations of the opportunity development (Johannisson 1997).

Additionally, different perceptions of opportunities within the society exist because of differences between the networks the actors are embedded in (Arenius & de Clercq 2005). Individuals with a network of many weak ties are more likely to perceive entrepreneurial opportunities than individuals with networks of few(er) weak ties (ibid.). Similarly, networks that are rich of structural holes have a higher chance of obtaining new and valuable information, which then contributes to the opportunity development process (Burt 1992). Following a similar argumentation, Singh et al. (1999) hypothesise that the number

of venture ideas and opportunities increases with the number of weak ties in an entrepreneur's network. Uzzi (1996), though talking about interfirm networks, contends that "the structure and quality of social ties among firms shape economic action by creating unique opportunities and access to those opportunities" (p.675).

Furthermore, Vandekerckhove and Dentchev (2005) argue that entrepreneurs are constraint by cognitive limitations and that in order to breach these an active approach towards networks needs to be adopted. "Social networks can help to expand the boundaries of rationality by offering access to knowledge and information not possessed by the individual entrepreneur" (Singh et al. 1999, p.G1). Additionally, networking stimulates general alertness towards opportunities (Klyver & Hindle 2007). Singh et al.'s (1999) empirical findings indicate that the nature and size of an entrepreneur's social network has influence on the discovery and development of opportunities. Hence, actively engineering networks, that is identifying and engaging with specific network members, can assist entrepreneurs to discover, define, and develop new opportunities (Vandekerckhove & Dentchev 2005). By the same token, de Koning and Muzyka (1999) assert that the aim of an entrepreneur is to influence the structure of her social context in order to expand her effectiveness in recognising an opportunity and thus indirectly affecting her own cognition. Establishing a systematic plan for networking and monitoring network activities as well as increasing network density and diversity are strategic principles to enhance opportunity development (Dubini & Aldrich 1991).

In a similar way, Ozgen and Baron (2006) investigate how mentors, informal industry networks, and participation in professional forums (conferences, seminars, and workshops) and thus the structure of social sources impact the opportunity development process. Their findings indicate that all three sources positively and directly influence the process and that consequently other persons or social actors often provide entrepreneurs with information useful in developing entrepreneurial opportunities. Contrarily, Davidsson and Honig (2003) find that agency contact (e.g. forums such as Venture Cup) merely helps to produce a business plan, which, however, not necessarily leads to further opportunity development and the ability to exploit an opportunity. This corresponds with the argument that business plans are not more than simple guides for entrepreneurial endeavours (Alvarez & Barney 2007).

De Koning and Muzyka (1999) develop a comprehensive framework, which sets out to explain how entrepreneurs are affected by and how they manage their social context to discover and develop opportunities. They argue that interaction is crucial for the

development of an entrepreneurial opportunity. Through cognitive activities the social context influences the opportunity development. Entrepreneurs evolve opportunities by pursuing three cognitive activities, information gathering, thinking through talking, and resource assessing through active interaction with an extensive stakeholder network. This approximates Vandekerckhove and Dentchev's (2005) network engineering approach. By the same token, Ozgen and Baron (2007) content that "overall, the present findings can be viewed as providing support for the growing consensus that an important key to understanding opportunity recognition as a process involves information – how entrepreneurs acquire it and the cognitive processes through which they organize, store, retrieve, and interpret it" (p.190).

Hsieh et al. (2007) argue that seldom a lone entrepreneur knows precisely what decisions and choices to make but that multiple actors are involved, advocating a network perspective. Often a set of actors is necessary to define precise decisions and strategic directions that lead to profitable new entrepreneurial opportunities and ventures; the search for and development of opportunities is then mainly an organising process. Also acknowledging the role networks can play, Hills et al. (1997) differentiate between two types of entrepreneurs, "Solo Entrepreneurs" and "Network Entrepreneurs", dependent on whether opportunity discovery occurs on an individual basis or through a network. Conducting a survey among entrepreneurs, they found out that "identifying opportunities is really several learning steps over time, rather than a one time occurrence" (p.8), thus promoting the idea of opportunity development as a (learning) process involving social interaction. Furthermore, the results revealed that network entrepreneurs identified significantly more opportunities.

The individual-opportunity nexus (Shane and Venkataraman 2000) paved the way for De Carolis and Saporito's model explaining how external, especially social capital, and internal, especially cognition, factors affect who discovers, develops, and exploits an opportunity (2006). They argue that the interaction and influence of social capital and cognition are important factors in analysing the exploitation of entrepreneurial opportunities. Hence, social environments play a crucial role in shaping an individual's behaviour and understanding.

Summing up, interpretive processes enacting valuable new means-ends relationships constitute a successful opportunity development process. Through social interaction, existing data is newly (re-)interpreted and opportunities are defined and enacted. Changes in the way social actors/entrepreneurs interpret data and their environment are the initial

sources of opportunities. Furthermore, the position of an entrepreneur in a given network determines the availability of critical resources and information and thus the likelihood of discovering and developing an opportunity. Interaction within a network to a large extent determines the development path of an opportunity.

3.5 Different entrepreneurial phases and their relation to opportunities and networks

Following a more evolutionary approach, the entrepreneurial process can be described in different phases or stages, where the composition of a network and the different ties involved during the phases are emergent. At different stages of the process different network members are important. Interaction and contact frequency change during the process and, especially weak ties, are involved in ongoing coming and going (e.g. Bhawe 1994; Greve & Salaff 2003; Klyer & Hindle 2007).

Larson and Starr (1993) focus on actors existing within systems of actors and the emergent process of organising to construct a three-stage model of the venture development process. An iterative process involving the exploration, screening, and selective use of networks is at the heart of their model and depicts the transformation of exchange relationships into a dense set of resource relationships. The three stages are focusing of the essential dyads, converting dyadic ties to socioeconomic exchanges, and layering the exchanges with multiple exchange processes. The first phase engages mainly informal ties, prior business contacts, family, and friends, existing as affective ties and social relations (strong ties) yet having the potential to serve for instrumental and economic purposes. At the end of the first stage a business concept has been developed into an implementation plan and critical resources identified. This phase appears to correspond with the opportunity development phase.

In a similar way, Evald et al. (2006) also divide the entrepreneurial process into three phases, into firm emergence, the newly established firm, and the mature firm, in order to define distinct network compositions. The firm emergence stage starts with the entrepreneur's decision to establish a business and ends when the business is legally formed and then fades into the newly established firm phase, which is mainly concerned with what happens early after the venture. This seems to correspond with the model proposed by Larson and Starr (1993).

Identifying the changing importance of the strength of ties over the entrepreneurial process, Evald et al. (2006), furthermore, conclude that strong ties, such as families,

friends, and close business contacts, seem to play a more important role in the firm emergence phase (cf. Davidsson & Honig 2002). Strong ties might be more valuable during this phase, since they provide a low-cost link to critical resources (Hoang & Antoncic 2003). A diverse network also serves the purpose of ‘snowballing’ information of the new firm, thus raising awareness under potential new network ties (Brüderl & Preisendörfer 1998). However, the composition changes towards a mix of strong and weak ties in the newly established firm and mature firm phase. As the venture progresses, specific knowledge, unlikely to be possessed by strong ties, becomes increasingly important, consequently a shift towards weak ties is implied (Davidsson & Honig 2002). Greve’s findings (1995) that the composition of networks changes over the process towards larger networks with more bridges and indirect contacts support this argument. Greve (1995) distinguishes between three phases of idea development, organising the founding of a firm, and running a newly established firm. During the idea development phase entrepreneurs need to acquire essential knowledge and resources to further develop the idea and scrutinise it. The knowledge and resources are acquired from persons who offer valuable input and advice as well as new either necessary or helpful connections to business partners offering these resources. Overall, during the opportunity development process the entrepreneur requires a variety of different resources, which can be accessed through a social network. Greve (1995) further finds out that during the first phase an entrepreneur uses a much smaller network than in later stages of the establishing process. The number of connections and bridges increases over the development process. He argues that in the early phase the entrepreneur might not know of the complexity of resources required to establish the venture and thus merely seeks social support from close contacts. By the same token, Burt (2000) argues that the identification and exploitation of entrepreneurial opportunities is explicitly linked to occupying bridging positions in a network.

In a later study, Greve and Salaff (2003) separate between the motivation phase, where the idea is discussed and developed within a “small circle of close contacts” (p.4), the planning phase, a large set of network members is mobilised to set up the venture, and the establishment phase, where running the business is salient. Different entrepreneurial phases can, however, not be delineated precisely, borders between different stages are blurred and different ventures have different timeframes for each stage or might even skip one of the stages (Greve & Salaff 2003); this supports the above-mentioned arguments that entrepreneurs are more likely to exploit opportunities when critical knowledge is

sufficiently developed and stakeholder support ensured, and that through networking and social interaction these variables and thus the process length can be influenced.

During the first “motivation phase” the business idea is developed and social support ensured through discussions and interaction with network members. Thereafter practical steps are taken and details are worked out, the second phase begins. Greve and Salaff (2003) find empirical evidence that entrepreneurs in the motivation phase have the smallest network, which reaches its peak in the second phase, though the difference to the third phase is not significant. In the second phase the majority of the time is spend on developing relations, as this phase exhibits the highest uncertainty and thus need for information and resources. Additionally, entrepreneurs in the first phase spend the least time on networking activities and relationship building, and strikingly the importance of family members is not significantly higher in the first phase. Johannisson (1997) disagrees with this and argues that especially during the early phase the personal strong tie network is relatively more important because of a large need of supplementary external resources. However, he also explains network variations and dynamics by detaching a conceptualisation, a gestation/start-up, and an operation phase. His findings indicate that during the gestation phase entrepreneurs spend less time on maintaining and enlarging their personal network compared with entrepreneurs in the operation phase. Evolving social ties in the early phase often arise out of social or casual encounters.

Contrary to the above-mentioned arguments, Klyver and Hindle (2007) contend that during the opportunity finding phase entrepreneurs rely extensively on diverse social networks consisting of many structural holes and weak ties. The authors are using a three-stage model as well, separating between the discovery, start-up, and young business stage. In the later entrepreneurial stage this changes towards dense networks, “often including a high proportion of family members” (p.25). Concluding that “structural diversity is more important in the discovery and young business stage then in the start-up stage” (p.26). Different conceptualisations of both the different phases and the strength of ties might explain the diverging results. However, further research into that area seems necessary.

Not researching opportunities and network, Bhawe (1994) still separates between three stages, the opportunity stage, the technology set-up and organisation creation stage, and the exchange stage, arguing that “the entrepreneurial process can be viewed as a function that can be carried out by an organisation” (p.238). Crucial for the opportunity development is the first stage where the business concept is defined (developed). The consecutive stages mainly deal with production technology and the actual product. De Koning & Muzyka

(1999) support this argumentation by stating “The opportunity development process is defined as the evolution of a single opportunity idea to a business concept” (p.9).

Depending on the respective research paper the timeframe underlying the opportunity development process discussed in this thesis either involves the first phase described, e.g. in Evald et al. (2006), firm emergence, and Bhavé (1994), opportunity stage, or the first and second phase elaborated upon, e.g. in Greve (1995) and in Greve and Salaff (2003). For the purpose of this thesis the timeframe can then be delineated as follows. The *initial idea or opportunity discovery* occurs where the entrepreneur or entrepreneurial team starts to realise the potential of a business idea, this is when the entrepreneur believes to sense a market need and a fit with specific resources, and then consequently begins to act upon it. The entrepreneur involves in continuous interaction and talking to further elaborate on the idea, to evaluate its full potential, to redefine, shape, and adjust the initial concept – in short to *develop the opportunity*. Similarly, in Greve and Salaff’s “motivation phase” a selected circle of ties is involved to discuss the idea, which passes over into mobilising a larger network of knowledge bearers and resource providers (the “planning phase”); developing contacts is salient in this second stage. Additionally, during Greve’s (1995) idea development phase, entrepreneurs need to acquire essential knowledge and resources to further develop the idea and scrutinise it. This is accomplished through discussions and interaction with network ties.

The focus then shifts towards organising and managing the organisation in the consecutive phase, where the research model of this thesis ends. Accordingly, the development process is slowly discontinued into the *organising and managing phase* where the business concept is already developed and fairly stable. This phase equals Greve and Salaff’s (2003) establishment phase as well as Evald et al.’s (2006) newly established firm phase.

After a review of the existing literature within the area of entrepreneurial opportunities and networks as well as working conceptualisations for the underlying constructs in this thesis have been provided, the following section analyses three case studies based on the foundations established before. However, new insights are expected to emerge from the studies and to offer a new understanding of how entrepreneurial opportunities and networks influence and develop each other.

4 Case company A (Freeprint³) – Free printing service

4.1 Free printing service for students combined with advertising opportunities for companies

“Freeprint can thereby best be characterised as an intermediary, which ensures that the best companies with the best jobs are linked with the best schools and the best students.” (Freeprint Business Plan (BP), p.6)

The opportunity Freeprint is pursuing involves free of charge printing for students at major European business schools coupled with providing an (job) advertising media for companies. The rear side of the printed-paper is used for company advertisements to finance the free printing. Sales are thus generated through selling the space for career-related messages on the rear side, where companies can advertise open job positions, company presentations, events etc. For companies this provides a recruiting tool to target students at (business) schools. The main concept is thus that students can print for free but receive tailored company messages and advertisements on the rear side of their printed-paper.

The concept makes use of the fact that means to attract talents of educational institutions are still mainly based on traditional methods such as company presentations and distributing corporate materials. Three main stakeholders are involved in the concept: students, companies, and educational institutions. The entrepreneurs themselves call their venture a “unique branding and recruitment media” for companies (Freeprint BP, p.2). Extensive partner and customer knowledge as well as strategic alliances are highlighted in Freeprint’s business plan, providing a first indicator of the role networks and contacts play for this venture.

In the following paragraphs different examples in the Freeprint case study for network and opportunity developments as well as their interrelation are provided. It has been attempted to categorise the examples to the extent possible, however the different categories are highly interconnected. Focusing on the initial idea and the development path of the entrepreneurial opportunity behind the Freeprint venture, changes towards the business model and concept in the early opportunity development phase are elaborated on. Hereby, different network members involved in the process and their role in shaping the opportunity development are highlighted.

³ The identity and name of the new venture and its founders have been masked for confidentiality reasons.

4.1.1 Backgrounds of the two entrepreneurial partners and the entrepreneurial partnership

Both entrepreneurs have finished their Master of Science degrees in ‘Management of Innovation and Business Development’ at the Copenhagen Business School (CBS) and thus both perceived and were confronted with the actual problem underlying their venture idea, having to pay for print-outs as well as receiving untargeted career messages, “(...) you get a lot of job opportunities and there are a lot of things communicated to you” (Entrepreneur K, Freeprint Interview I, p.2⁴). This problem is what they are trying to ease or solve now with their venture.

Entrepreneur K acquired entrepreneurial experience during his studies where he helped to start up a company, “I was part of a few networks and I have got a relatively good network through my [student] job” (K, FI, p.2). Thus, entrepreneur K already started his ‘networking activities’ while pursuing his studies. Today he regards that as a very valuable asset and crucial for his entrepreneurial endeavours, an asset that he has not had at hand in high school when he was considering realising one of his ideas, “(...) because that is the whole thing in-between like everyone can get tonnes of ideas but it is that I did not had the social network [back at high-school]” (K, FI, p.4). Entrepreneur K seems to be very aware of the value of networks for his venture but also for ventures in general.

The entrepreneurs have the same background and similar professional experiences, and they both feel that “they can really fast build an idea” together (K, FI, p.5). Entrepreneur K, furthermore, describes the partnership between G and K as “(...) having a great weakness that we have the same education (...), but on the other hand we communicate the same language” (FI, p.5). Overall the entrepreneurial partnership is characterised by a healthy combination of knowledge and experience as well as the ability to work together and to develop ideas. “You are really close to your business partner, you have to be. I like the idea of having a business partner because I really believe it contributes” (K, FI, p.22). Thus, the entrepreneurs also engage in a partnership because they see value and potential in it. The following sections also reveal and analyse why this might be the case.

⁴ Consecutive quotes will be cited as follows, “Entrepreneur K, Freeprint Interview I” will be indicated as “K, FI”, correspondingly “Entrepreneur G, Freeprint Interview II” will be “G, FII”.

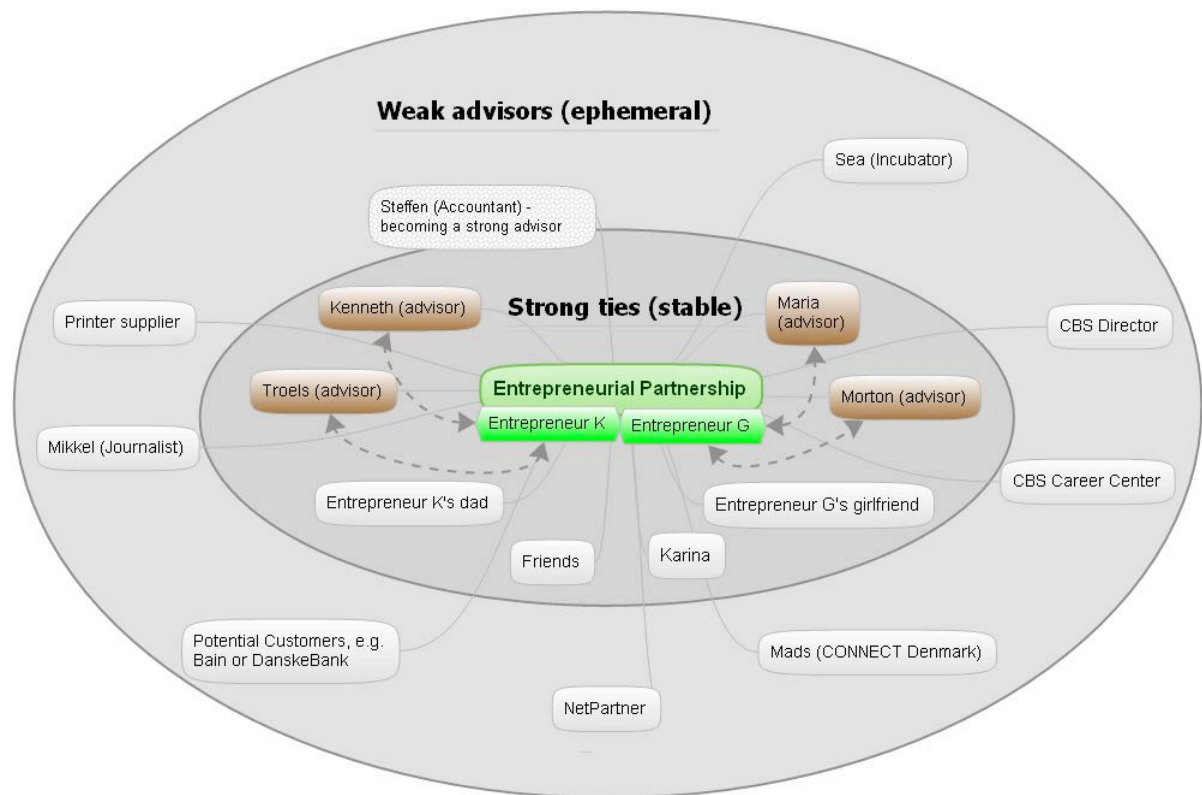


Figure 1: The network of Freeprint

The graphic sketchily illustrates the network that the entrepreneurs G and K depend on throughout the development of the opportunity and that is discussed in this thesis. The dotted arrows connecting the entrepreneur with the strong ties highlight strong advisors the respective entrepreneur refers back to. Furthermore, the network of weak ties is not exhaustive yet highlights the most important weak advisors who had or have an impact on the opportunity and who are discussed here.

4.2 The idea finding process – discovering the Freeprint opportunity

“I think we sort of coupled the idea, combined the idea of using both sides of the paper and the situation we were sitting in as a student getting a lot of communication from companies.” (K, FI, p.6)

The original idea for Freeprint evolved when the two entrepreneurs were about to finish their education at CBS. Both entrepreneurs were exposed to a variety of media supplying them with different kinds of company information and job openings within and outside their area of interest and education; they were for instance receiving job offers for engineers although graduating from a business school.

Being confronted with an overload of information for open job positions and company presentations, entrepreneur G approached entrepreneur K with a or rather because of a

concept he discovered in a newsletter sent out from www.springwise.com, an online community collecting and spreading new venture ideas from all over the world. The original idea depicted in the newsletter was a Japanese company using the rear side of printed-paper from copy machines to promote product development, for instance for new mobile phones. The entrepreneurs then discussed the idea from the newsletter having the actual problem of untargeted career messages in mind. Thus, the combination of an uncertain future, an overload of targeted and untargeted job offers, and the ‘*discovery*’ of an entrepreneurial idea in the newsletter triggered the initial discussion between the two partners. Entrepreneur G comments on the first idea finding that he thinks, “it was more that the opportunity was there in terms of the time” (FII, p.8). Thus, a discovery element can be clearly identified. This initial discovery and discussion phase demarcates the starting point for the opportunity development process and also for the following case research.

The entrepreneurs quickly decided to follow up on the initial idea and started establishing contacts as well as gathering additional information. The idea the entrepreneurs were discussing was rather simplistic, pre-printing the advertisements and putting the pre-printed papers into the school’s printers. Initially, both entrepreneurs regarded the idea as “the easiest thing to do in the whole wide world” (K, FII, p.10), underestimating the development path the initial idea would take over the course of the process. Very early in the process the entrepreneurs started contacting their established network ties within CBS to evaluate the potential and feasibility of the project. Especially the CBS Career Center, where entrepreneur G had worked before, was their primary source for feedback and advice, “(...) he had the right connections there and we knew who to talk to” (K, FI, p.10), ‘business know-who’ hence appeared to be helpful in this initial phase. Furthermore, they contacted printer suppliers to establish contacts on the supply side and to gather initial necessary information and knowledge about the feasibility of the project. These were first steps into expanding their network and also into developing the opportunity. “And it was through some of these meetings [with CBS] that we began to develop the concept further and test as well (...)” (FII, p.10), entrepreneur G here accredits the development component already inherent in this early phase of the development process. Communication and interaction with a limited yet distinct set of contacts began, especially the as essential regarded resource provider, the printer supplier, and the distribution point CBS were early on in the focus of the entrepreneurs.

Besides general feedback and motivation from friends, entrepreneur K explicitly mentions his father as a stable source of emotional support and feedback especially in the very early phase of the venture, “(...) every time the house is burning I call him” and “(...) he supports however it works” (K, FI, p.27). After three months, the entrepreneurial team conducted a survey at CBS to receive representative feedback from students on their idea. The overall feedback was very positive and provided the entrepreneurs with additional motivation and confirmation to pursue their idea, 93% of the students responded that they would use their service. Initiator of the survey was entrepreneur G’s girlfriend, who due to her marketing background saw the necessity to conduct market research at the beginning of the venture (e.g. G, FII, p.11). Thus, early on strong ties in the network played an important role, both in providing the necessary motivation to pursue the venture creation and in pushing the development of the opportunity.

Summing up, through talking and acting upon the initial discovery the idea took off and the development path of the opportunity was initiated. In addition to the discovery element, the opportunity initially developed through discussions between entrepreneur G and K, thus within the entrepreneurial partnership. The entrepreneurs *actively combined* their need to manage the overload of job information and the ‘discovered’ possibility to use the rear side of printed-paper, which led to the active development of the initial idea. The entrepreneurial partners ‘talked the opportunity into existence’. Feedback and information about the feasibility of the opportunity was a decisive factor in that stage of the process, the entrepreneurs ‘jumped’ right into developing the concept further by for instance calling potential suppliers. Strong ties such as Entrepreneur K’s dad and entrepreneur G’s girlfriend were also involved in the process early on. The initial idea was still perceived as fairly simple, using existing printers combined with offering advertising space to companies.

4.2.1 From existing school printers to Freeprint printers operating with duplex printing

“So from the supplier connection we moved the concept from pre-printed paper to on-site duplex-printing.” (K, FI, p .17)

As a crucial stakeholder for the venture, the director of CBS several times postponed the meeting about the decision to launch the free-printing service. To hold off on the meeting was experienced as a “lack of importance to CBS” (G, FII, p.10) that resulted in a delay of the opportunity development process (e.g. G, FII, p.11). However, finally the entrepreneurial team participated in the key meeting with the director and received the

approval to launch a trial period at CBS. Originally, the entrepreneurs planned to use their own printers within the CBS facilities. But friends, strong ties, that they were talking to continuously kept asking, "(...) why do you not use the existing printers because that would be a lot easier'" (K, FI, p.15). So they approached CBS with a concept exploiting the existing printing system. However, CBS denied the approval to launch on the existing printers, "(...) then in January we were allowed to go into CBS but only if we could come with our own printers. So, everything we have been planning for half a year was a no-go (...)" (K, FI, p.16). Thus, the concept developed from using own printers to using existing CBS printers and back to Freeprint printers through input from both friends as well as weak advisors. It seems as though the opportunity runs through a development process influenced by network ties and resulting in different development stages.

After they got the approval to launch at CBS, the partners had to elaborate and further establish their supplier contacts, for instance they were required to source their own printers now and to agree on maintenance contracts etc. Initially, they planned to personally pre-print the rear-side of the paper before students could print on the front side. In a discussion at one of the meetings with a supplier, a weak tie disclosed that duplex printing on their printers is possible, "Because the original idea (...) is to pre-print the pages and that was the idea until I spoke to (...) he was like, 'Ok, why do you guys not print on both sides like duplex print'" (G, FII, p.12). Duplex printing means that both sides can be printed simultaneously in the same printer, thus saving the step of pre-printing the rear sides. The duplex printer significantly eased the logistical aspects of the idea since the entrepreneurs do not have to pre-print the rear-side themselves or as entrepreneur G mentions, it "(...) would save us logistics because it was becoming a little bit of a nightmare because we had to estimate how much the students would print (...)" (FII, p.12). The opportunity to use duplex printing for their idea was thus enacted through social interaction and talking with a printer supplier. This resulted in new knowledge and an adaptation of the opportunity.

After discussing the duplex development with CBS, the entrepreneurs were forced to take another development step. CBS was afraid of students putting white paper into the printer and to then print free of charge without receiving advertisements, hence the entrepreneurs developed a concept to lock the printers, where students therefore were not able to open the printers and replace the paper. This modification impacted the opportunity further.

Thus, through interaction with weak ties, the printer supplier and CBS, the opportunity changed and developed significantly, as entrepreneur K states, “And that was a big step, because imagine the whole business model just kept completely changed, because before you had to get it two weeks in upfront (...) you had to buy everything upfront, you had to guess how much paper you need, and all stuff. Whereas now we just put white paper into the printer and then it printed (...)” (FI, p.17). Important to note here is that although weak advisors, the printer supplier and CBS, triggered the developments, the final decision was made through discussing and sparring the idea within the partnership. While interacting with weak ties and within the partnership the entrepreneurs gained new knowledge which initiated changes towards the original opportunity and thus a development path of the opportunity.

4.2.2 Discussions about a pricing system

“So how do you price it? I mean we have probably spent 500 hours in discussing prices. And then of course we used our network.” (K, FI, p.10)

Pricing of the advertisements was another key issue of the opportunity, especially in the early stage, but eventually during the whole process. For the entrepreneurs it was difficult to establish a system where companies can book advertising space for a certain number of pages and then to guarantee that students would print the amount of pages during a specified period, “We discussed a lot about how we should price it originally and we kept going back and forth. (...) we could not work out how to charge per week or per students” (G, FII, p.14). The initial plan was to charge companies per page on which they occupy advertising space. However during discussions with customers, they identified the drawbacks of this model, for instance the issue of timing an advertisement, an issue that was crucial for the customer, “(...) and they say ‘No, we do not want to buy that because we do not know how long our advertisement is going to last in your media. Then you go back and then we have to make a time [period]’” (K, FI, p.12). Hence, the customers simply complained about the current pricing system, yet without proposing any changes that would improve the system, thus merely offering general feedback to the entrepreneurs. The entrepreneurs also listened to general feedback from within their broad network, “(...) we are pretty open, asking other guys: ‘What do you think?’” (K, FI, p.10).

After collecting this general feedback, and in particular the feedback of the customers, discussions about the concrete set up of the pricing system followed. Involved in these pricing discussions was especially one person, Kenneth, a former fellow student and strong

advisor, who was mainly used to spar the specifics of the pricing system such as the exact amount of money charged per week. In particular his professional background, he is working for a venture fund, and his position as a friend of the entrepreneurs' made him an ideal sparring partner (e.g. FI, p.10). Eventually, these discussions led the entrepreneurs to a model in which they charge companies on a per week basis and in which companies exactly know the timing of their advertisement on the rear-side.

Feedback of general nature initiated discussions that led to improvements of the pricing model. Weak advisors provided the initial trigger for the entrepreneurial development, but the specifics and final developments were discussed with a strong advisor.

4.2.3 Establishing a multiplatform database

"I saw another idea, and this one was for invitations to events and things like that. And then I thought, ok let us integrate our system into that as well to give our companies more options to send out. So that was another change, further development of our concept." (G, FII, p.12-13)

The entrepreneurs were actively looking for additional revenue possibilities as a result of participating in a session of the CONNECT Denmark springboard panel, a panel where nascent entrepreneurs can present their idea and concept and receive feedback from specific knowledge bearers, such as venture capitalists or entrepreneurship teachers. The feedback from their first springboard meeting was that they had to streamline their business model and to expand their revenue possibilities, "(...) and they were like, you need to have your business model more straight, and you need to expand your revenue opportunities" (K, FI, p.17). Another newsletter from www.springwise.com then provided the key input for another adaptation of the opportunity, which let it advance significantly. The newsletter introduced a webpage called www.plingg.com, where people can produce tailor made invitations and send them to different contacts using a variety of different media, for instance text messages (SMS), email etc. The idea behind www.plingg.com is a multiplatform, which entrepreneur G regarded as suitable for the Freeprint idea as well. In addition to free printing, the entrepreneurs have now started working on additional and complementary services that will expand the portfolio of available media that the companies' campaigns and branding initiatives can be communicated through. Other media under consideration are e-mails, SMS, postcards, as well as company presentation bookings and announcements, mainly based on the plingg-webpage idea. The overall

object for Freeprint is now to become a “one-stop-shop for companies to communicate with students” (Freeprint BP, p.7). Entrepreneur K describes the finalising steps and discussions of this development move, “We sort of created that whole system and then we went back to our friend in Vækstfonden [Kenneth] and said, ‘how would this work?’” (FI, p.12). With a concept in mind the entrepreneurs thus went to their strong advisors to spar and discuss their ideas and finally produce an implementable concept:

“So, in one step the concept went from just a piece of paper to being a multi-platform thing that was a sustainable own product. (...) And we did not just have revenue streams through our printing but also through email, SMS, and it did not cost much for us. (...) So, it really became an interesting project in our eyes, so we went straight to like our friend in Vækstfonden again and actually to the CBS Career Center.” (K, FI, p.18)

Summing up, after the initial idea for a further opportunity development step was pushed through feedback of the springboard panel and the idea from the springwise newsletter, hence through weak advisors, the entrepreneurial team went back to their strong advisor, Kenneth, to discuss the idea and finally decide upon the eventual changes and developments. It appears that discussing and sparring the idea with their inner circle of strong advisors significantly contributed to the final decision making process.

4.2.4 Concept development with NetPartner

“We identified that we could actually segment students by their print-card and by entering it into a database and before we had not any segmentation it was just you swipe the card and you print.” (G, FII, p.14)

A friend, Karina, of entrepreneur K initiated another fundamental network expansion that led to a partnership between Freeprint and NetPartner, a Danish IT company. The friend had just started a new job in the IT company that was shifting its business focus from IT development into copying and printing systems. This provided an excellent opportunity for an alliance and collaboration with Freeprint. During a casual chat at a get-together the discussion topic shifted towards Freeprint and the needs and resources necessary to set the venture up. Karina realised that NetPartner could actually be a resource provider for Freeprint. Entrepreneur G reflects, “And then entrepreneur K, he met Karina who works at a software company, NetPartner, that we are currently working with and then we got in contact with them. (...) And then that developed that whole side of it” (FII, p.12). Hence, through the friend a new supplier relationship developed and now Freeprint is working

closely with NetPartner on the opportunity and concept development.

NetPartner also contributed with ideas to the development of the opportunity. Companies often asked for or rather demanded the possibility to segment the students for their rear-side advertisements and thus to target specific student (groups), for example 2nd year M.Sc. in Applied Economic and Finance (AEF) students at CBS. In order to segment students and thus fulfil the customers' requirements a database and print-card concept was developed. The potential customers triggered this development, "I think again that is, it is also from talking to customers. I think a lot of this actually comes through talking to customers" (K, FII, p.15) and "(...) that was through Bain, through DanskeBank, through many of our customers, they are very interested in segmenting" (G, FII, p.16). NetPartner proposed to the entrepreneurs that they could develop a print-card and a card reader only for the Freeprint service, entrepreneur G reflects, "(...) it was NetPartner who came up with the card-reader" (FII, p.16). After input and knowledge from customers and from NetPartner had been acquired, especially Maria and Morton – two former fellow students who founded their own start-up consulting company and became strong advisors for the entrepreneurs – were consulted for precise and concrete feedback on creating and using the database, as well as adjusting the price model to the new development. Through the discussions a new price model evolved that charges according to the popularity of targeted students, similar to the Google model where popular search words are more expensive. Additionally, the usage of the database was further refined because of Maria and Morton's feedback. The database will include student information such as gender, age, education, industry interests, language skills, etc. This information will be obtained through voluntary student registrations, which are necessary to obtain the Freeprint print-card, and is further encouraged by various student benefits and additional free-prints added to their personal printing accounts. One of the entrepreneurs describes the feedback conversations with Maria and Morton as "processes of sparring", where the idea bounces back and forth, "(...) they helped formulating it for us" (G, FII, p.18). Reasoning the discussions within the circle of strong advisors, entrepreneur K states, "Because this is at the heart of your business (...) you do not want to discuss it with everyone but that would be the close contacts" (FII, p.18). Finally, the entrepreneurs are now able to segment students through their print-cards and to charge companies according to the segment of students they are targeting.

Involved in this process of the print-card concept were different network members with a varying degree of influence and input provided. Different stages, partially returning

to the original idea, were implicated in this phase of the process, such as developing a print-card and linking it with the multiplatform database. A number of different network members were involved in providing input for this development, “Customers, they were very interested in segmenting. I think the pingg.com webpage gave us the idea to segment and that is where the database idea came from. And then I think it was NetPartner who came up with the card reader” (G, FII, p.16). Weak advisors initiated the development and the springwise newsletter respectively the www.pingg.com business concept provided the initial thought and input for setting up a database. Their printer supplier, NetPartner, then added the print-card component to the concept. Whereas the idea evolved because of feedback and requirements from customers and suppliers, the honing and shaping of the final opportunity took place within the inner circle of strong advisors.

Establishing a partnership with NetPartner also helped expanding Freeprint’s overall network, they for instance established a contact between Freeprint and a venture capitalist. Entrepreneur K contends that “this is another way on how business contacts work [as resource providers]” (FII, p.20). In this case the network worked both as a provider of contacts for acquiring resources leading to a further expansions of the network and providing input for opportunity development as well.

4.2.5 Complete Printing System Operator

“And then he was saying, ‘It would be nice one day having you guys take care of the printing and the free printing so to speak at one printer’.” (G, FII, p.2)

The last major change made to the original idea was initiated by a formal discussion with the director of CBS. During this discussion the director made the comment that it would be convenient and appreciated in the future to have only one printing system at the school, which means free- and paid-printing in one system and one company operating and taking care of the whole printing system. “(...) We talked to the director of CBS and he just inadvertently mentioned something out of the top of his head that would be helpful to him that we have not thought about. And that helps us for developing the concept” (G, FII, p.1). The entrepreneurs reflected upon the comment and weighted the pros and cons of being a whole service provider, and evaluated the idea as worth for further elaboration. After the development was triggered by the negotiation with the director, the entrepreneurial team consulted their close contact Kenneth to discuss and redefine the development with him, “we often use him [Kenneth] to test the idea” (G, FII, p.1). They consciously sought feedback from him. As a result, specifics of the system, for instance the possibility to

utilise printers that can print with and without advertisements, were defined and then the decision to move on with the development was made based on the discussions with the strong advisor.

A potential additional part of the opportunity the entrepreneurs had not thought about before was hence provided by a weak tie and approved by a strong advisor. Hence, the opportunity eventually developed into a fairly stable business concept that now needs to be implemented and established. It now has the potential to develop further into a more complex and sophisticated concept with different revenue streams from advertisements as well as paid-prints, which changes the business model significantly. Eventually Freeprint can now bid for operating complete printing systems at (business) schools.

4.3 Networking and network expansions and its contribution to the opportunity development

“I believe networking is a good, probably the best way to execute on your activity or your idea.” (K, FII, p.27)

The Freeprint entrepreneurs are very aware of the role networks play for their venture, “There are a lot of those things that in the beginning when you do not have the social network, you do not know what to tell them, you do not know what to tell the bank guy, which formulas to fill out and all that” (K, FI, p.7f). Consequently, they engaged profoundly in establishing and extending a network supporting their opportunity development and venture creation. The following section explains crucial network expansions that took place and why they took place.

One way of networking for the entrepreneurial team is to actively spread their ideas and experiences by giving presentations and participating in discussion forums. One of the presentations was held at a student organisation event, which eventually led to a discussion between the entrepreneurs and the Venture Cup Denmark manager, Torsten, who also attended the presentation. The manager convinced the entrepreneurs to participate in the Venture Cup competition and hence to write a business plan (BP). For the purpose of writing the BP the team hired Maria and Morton:

“And he [Torsten] asked us to actually submit our BP to VC, the competition. (...) So we started writing our BP and then we engaged Idealizer, which is a friend of mine or two friends of mine who I knew through when I was working for CBS.” (G, FII, p.13)

The two fellow students have both been friends with the entrepreneurs before. Involving

them in the BP development initiated their (voluntary) engagement as strong advisors for Freeprint, they became part of the inner circle. As a result, the two former fellow students have been involved in recurrent discussions about different characteristics and features of the opportunity and thus played a significant part in shaping and defining the opportunity.

A rather coincidental yet decisive network expansion occurred through entrepreneur K's parents and their network. At a get-together in their neighbourhood they presented their son's idea to one of the neighbours whose daughter works together with an incubator programme (Sea) for entrepreneurs. The story raised awareness for the venture to-be and the neighbours' daughter established the contact between the incubator programme and Freeprint. Finally, originating in an informal chat, Freeprint was then invited to participate in the incubator programme, which led to financial support, but also to network expansions and developments of the opportunity. The incubator programme assisted the entrepreneurs with financial help for consulting and legal fees, nevertheless more essential are the network(-ing) opportunities they received through participating in the programme. One crucial expansion was a journalist (Mikkel) the company got in contact with, who now supports Freeprint with press releases and related materials.

However, more importantly through participating in the incubator programme Freeprint also received a spot in the CONNECT Denmark springboard panel, which itself contributed significantly to network expansions, "Actually that meeting [CONNECT Denmark] has given us some contacts" (K, FI, p.11). A new network member, Mads, who they met in the Sea incubator programme, arranged these springboard meetings for Freeprint. By presenting their idea to the CONNECT Denmark experts ('acting'), the entrepreneurs received feedback and new ideas ('responses from their actions'), which initiated further considerations about opportunity developments ('readjusting'), finally this contributed to the opportunity development. An example of a development initiated by participating in the springboard panel is the multiplatform using different media to distribute advertisements the entrepreneurs plan to set up.

The springboard panel furthermore provoked an additional expansion of their network. During the first springboard they got in contact with a manager (Steffen) from a large advisory company who now assists them with budgeting and financial issues. Entrepreneur G states, "(...) and that was through those springboard meetings (...) and all the sudden he has been really helpful for us" (FII, p.6). Thus, while the entrepreneurs worked on their idea they simultaneously expanded their network, which then again contributed to further inputs for developments of the opportunity. Entrepreneur K states this similarly, "(...) but

then they [entrepreneurs] have created both their knowledge and their social network” (FI, p.4), recognising the strong interrelationship of knowledge and networks.

One can conclude that the entrepreneurial network and network expansions had significant influence on the development path of Freeprint’s entrepreneurial opportunity. Besides providing direct feedback and input for the idea and its development, network members also helped expand the network and make contacts with different kinds of knowledge bearers and resource providers. Overall, the network expansion Freeprint ran through was fairly large and the impact new network members had on developing and advancing the opportunity was significant.

4.4 The role network ties play for Freeprint – availability, influence, and impact

“My brain works who can help me with setting that up and then it goes talk to this and that person. And then you move.” (K, FI, p.1)

Entrepreneur K highlights that some of the network members are only involved on a temporary basis depending on the development stage the opportunity is in, “I mean that [contacts] are probably the ones we use this month” (FI, p.25). He differentiates between loose members who often serve a specific purpose (light grey ellipse in Figure 1) (e.g. FI, p.25), “I would say they [the loose ties] are specific for what you do, (...) like when you need a lawyer then you call a lawyer” (K, FI, p.25) and between people that stay close to you and that you always refer back to (dark grey ellipse in Figure 1). Talking about the emergent nature of his network, entrepreneur K states that his circle of friends and strong advisors is fairly stable and will stay the same during different phases of the venture, whereas the specific knowledge bearers change and shift according to the actual phase and topic under discussion (e.g. FI, p.28).

Kenneth, Maria, Morton, and Troels are strong advisors and thus the inner circle in Freeprint’s case. This inner circle of advisors stems from friends with a business background. Entrepreneur K clearly distinguishes between friends with and without a business education, “(...) that is the beauty of being two or more that it always gets stronger the more people you talk to, like it is good to talk to friends and stuff like that, but if you also talk and have the ability to talk to someone that actually knows something about it, then it just grows. So your social network is really good to talk to” (K, FI, p.5). He insists that it is friends with a business background that provide valuable advice for the venture, “And having this feedback [from friends that know about business and their venture] that is how you build good ideas” (K, FI, p.5). Thus, business knowledge seems to

be a prerequisite for receiving strong feedback. Moreover, the more specific their expertise is in one area, the more their feedback seems to be sought. For example Kenneth is a very valuable sparring partner for his knowledge in venture creation, “(...) the guy from Vækstfonden [Kenneth], because he knows this start-up phase” (K, FI, p.10). Entrepreneur K discusses specifics of the venture with two friends who took that same master’s degree and now work at IBM and Vækstfonden, hence both have a business background and “they understand our language” (K, FI, p.11), combining mutual understanding, trust (friendship), and specific business knowledge.

The process of discussing and sparring ideas with the inner circle seems to become routine, before a development of the opportunity is carried out the inner circle is approached, “(...) we often use him [Kenneth] to test the idea, cause we often say like, ‘Ok, Kenneth we have this idea (...). Is this possible to go around with the market or can we get money for this or will an investor pay for this or etc.’” (G, FII, p.1f). Then the process of discussing and sparring with the inner circle begins, “(...) they [Maria and Morton] have been part of that process of sparring. So, we have basically come up with one version and they have come back and said, ‘Oh, but we got this’. And then it bounces basically” (G, FII, p.17).

Entrepreneur K continuously highlights the relationship with strong advisors by referring to them as “friend slash business” (e.g. FI, p.23), arguing that in a professional environment they would discuss and spar their ideas with them and then evaluate their input and feedback, while in informal settings, for instance weekend get-togethers, they are friends not talking about business. As mentioned before, the strong advisors have a particular role in that a range of confidential information is shared and discussed with them.

However, a friendship connection is no prerequisite for sharing specifics. The CONNECT Denmark springboard panel was also used to discuss specifics as mentioned above. Parts of the entrepreneurial network, especially weak advisors, were often only involved once or twice during the process, supporting the argument that at least parts of the network are of ephemeral nature. This seems, nevertheless, not to impede the influence a weak advisor can have. The entrepreneurs themselves have identified distinct ways of using strong and weak ties. They differentiate between testing and developing the idea, where testing constitutes a sparring and discussing process and where developing the idea encompasses changes towards the initial concept (e.g. FII, p.1). While strong advisors (the inner circle) are used to test the idea, developments are rather inspired or initiated through

input and new knowledge from specific knowledge bearers, who in Freeprint's case are often weak advisors.

Entrepreneur K describes the underlying process of using the network the following way. At first, a person that is knowledgeable in a certain area needs to be identified, "(...) of course we talked to a lot of people, but in order to move you there is of course some people in our network that have tried it before, that have some experience within it, that can give you, can you say it, feedback on the specifics. Other people can give you feedback on the general, if it is a good or bad idea" (K, FI, p.10). Once the tie has been approached, an exchange and learning process sets in, "That is a very simple learning process, like we do something, we get feedback. Then we change something and then you do it again, you get feedback again" (K, FI, p.13). Once new information and knowledge has been gathered, it is evaluated and possibly combined with other elements. If a new concept evolves, the strong advisors are used to discuss it. The final decision is then taken within the entrepreneurial partnership. "The next step for us on what we work is that now we thought a little bit about this, we put it together and then what we used to is call Kenneth or someone else and then go talk about it because then we get the feedback and we can decide like when to move, how to move" (K, FII, p.5). It appears that the entrepreneurs follow a process where they act ('test'), then receive feedback and finally readjust (or not) based on the feedback they received ('develop').

The role different network ties play in this process is acknowledged by the entrepreneurs as "specific to the knowledge of the individual" and furthermore the success of inquiries depends on the questions you ask, "you get specific input when you ask specific questions" (G, FII, p.30). Therefore the input depends on the ability of the entrepreneur to ask the right questions in the first place, "But this is, like for the specific parts I think the more you can be yourself specific about what you want to do, the easier it is to find the people that can help you. And then if you are open to ask them you get extremely valuable feedback, exactly when you need it" (K, FI, p. 30). A concrete example is the following, "I need to get a logo done, I need to get a website done. Ok, then I know that guy in this [his contact list] because of course I do not talk to 550 people every day but I know which ones are in here that can help me when I have a problem with web design. And they are the ones in the outer circle" (K, FI, p.30), also accentuating the fact that these ties with specific knowledge are used infrequently, they are weak advisors. Contrarily the entrepreneur identifies his strong ties, "Then you have friends that you just talk to about the concept all the time" (K, FI, p.30). However, for the entrepreneurs it is not always easy

to identify and reach the important weak advisors, “So that is a big challenge to get in to the right people” (K, FI, p.15). Identifying and being able to contact knowledgeable weak ties appears to be essential for the opportunity development.

Thus, the advantage of the network, the specific knowledge inherent in the network, depends also on the ability to identify the right questions in combination with identifying the appropriate network member, as entrepreneur K puts it, “(...) because if you know what you are talking about, you will know who to ask” (FI, p.28). This then leads to the questions of “who do we know, who would be the best guy to get in contact with” (K, FI, p.8), thus combining the need for specific input with the existing network members. However, at the same time, the entrepreneurs admit that the “(...) network also gets better. We do maybe not need to know more people but we need to know a little bit more of the right people” (K, FII, p.28) during the process, hence through engineering and expanding their network, the entrepreneurs actively influence the development path of the entrepreneurial opportunity. Similarly, at different points during the interview both entrepreneurs highlight that one has to use networks the right way in order to get the most benefit out of it (e.g. FI, p.20; FII, p.30). The impression here is that ‘business know-who’ is important during the development process, but that contacts can be of one-time nature as long as an established network of strong advisors where one can discuss the concept and potential adaptations stays stable.

The entrepreneurs are aware that networking activities and social interaction have crucially influenced how their entrepreneurial opportunity has developed and will further impact the process:

“Now I truly believe that it is the best idea we ever had, because it has developed through talking, through friends that know something about business, and customers that can say yes or no. If we think back, it always comes from talking to someone. We both believe that we create this through talking to a lot of people (...), everything has moved so fast the last year (...).”
(K, FI, p.13 & FII, p.1)

When an active approach towards networking is adopted, the coincidental nature of some developments and expansions does not look so coincidental any longer, or as entrepreneur K states, “(...) but it is not that coincidental because you have helped them or you have been talking to them or you have made a good pitch or (...) you have to sell yourself” (FII, p.20). It therefore appears as though networking actively assists the opportunity development process and thus influences the strength and robustness of the final business

concept.

4.5 Conclusion Freeprint

“You don’t get good ideas for free, (...) you develop good ideas.”

(Entrepreneur K, Interview I, p.6)

Summing up, the overall development paths of the network and the opportunity have similar characteristics. Both changed and developed significantly during the course of the process, often in parallel. Whereas the opportunity grew in complexity and magnitude, the network especially grew in the number of (weak) ties and consequently lost some of the initial redundancy in the knowledge and information available to the entrepreneurs. The interaction between the network and the opportunity mutually shaped the respective other part, that is the network expanded because of opportunity development and the opportunity developed since the network expanded. Hence, *social interaction and networking* play a significant part in shaping the opportunity creation and development process. Generally speaking the opportunity existed objectively ‘out there’, but a discovery of the idea and combining it with distinct other features, and thus social interaction with a network, was necessary to initiate the development process.

Entrepreneur K states that “(...) where we are now from where we were a year ago has been done primarily through talking to people and acting” (FI, p.12), revealing the linkage between social interaction and developing the opportunity. Entrepreneur G further elaborates and reinforces this by arguing that “(...) it is the fact that they [entrepreneurs] are acting, they are creating and actually doing things” (FII, p.22) and furthermore, “And a lot of it is like network, I find it hard to believe that any entrepreneur can do something like this on their own” (FII, p.22). The entrepreneurs’ experience seems to be that it is helpful for entrepreneurs to pursue two main tracks that are not mutually exclusive but rather amplifying each other: creating knowledge and gathering information as well as establishing a social network, often these two activities accompany and reinforce each other (e.g. FI, p.4).

As shown above, *feedback and external input* play a crucial role for the two entrepreneurs (e.g. K, FI, p.5), highlighting two decisive components of the early entrepreneurial stage: seeking feedback and input, which often involves networking and network expansion, and building (developing) the idea and opportunity, which often includes discussions with strong advisors. The development process is further highlighted by entrepreneur K admitting: “(...) we do something, we get feedback, then we change

something and then you do it again, you get feedback again” (FI, p.13). This mirrors the creation view of entrepreneurial opportunities, where opportunities are the result of action, interpreting responses, learning, and acting again or putting it differently where opportunities are enacted.

Gaining feedback and new knowledge is a substantial result of social interaction. The entrepreneurs differentiate between specific and general feedback and who can provide them with either specific or general feedback (e.g. FI, p.10). For specific feedback either specific knowledge bearers – often weak advisors contacted only for specific one-time input, such as people from the CONNECT Denmark springboards – or what they call “friend slash business” (strong advisors) are approached. General feedback can theoretically speaking come from all kinds of sources. If the entrepreneurs acknowledge the importance of a network tie and his knowledge they might consider bringing it into the inner circle of advisors to discuss a potential development. An example for general feedback is the initial change from buying own printers to using CBS printers, which was mainly initiated by friends (e.g. FI, p.16).

Furthermore, *networking and expanding the network* is crucial to generate the opportunity to gain feedback and gather resources. Entrepreneur G acknowledges the importance of sharing ideas and actively engaging in social interaction, “the more we share it seems the better the idea becomes” (FII, p.25). CONNECT Denmark is a good example for an active approach towards networks and how they work. Freeprint was able to receive constructive specific feedback, which led to considering multiple revenue streams and thereby the multiple platform structure. Simultaneously they could expand their network, which again led to further feedback and development opportunities.

Additionally, entrepreneur K unknowingly *separates between strong and weak ties*, stating that weak ties help to execute things that have been discussed with strong advisors (ties) (e.g. FII, p.24). Hence, strong ties assist in making final decisions about a development step, they are part of a process of discussing and sparring the inputs and ideas. A major advantage of strong advisors is that they combine trustworthiness and intimate knowledge of the venture to-be. It is thus good to have strong advisors that you have trust in and that at the same time have knowledge necessary to evaluate the proposed development (e.g. FII, p.24).

Summing up with entrepreneur K’s words: “I guarantee you we could have never have come up with what we are doing now. And that is because of interaction, because of our suppliers, friends, and business network. (...) And you build, like your network also gets

better” (K, FII, p.28). Here both components of the proposed model come to the front, the focus on networking and network expansion as a tool to develop an entrepreneurial opportunity. Additionally, he highlights the process component of both the network and the opportunity, whereas the network is relatively small in the beginning and the input is more of general approving nature, the network then grows and the input becomes more specific (e.g. FII, p.31). Both the opportunity as well as the network developed from being relatively simple at the beginning to complex and sophisticated towards the end of the development process.

Table 1: Overview of network members and their respective functions for Freeprint

Phase	Network ties involved and their impact and influence			
	Strong ties			Weak ties
	Entrepreneurial partnership	Family and friends	Inner circle of strong advisors	Weak advisors
<i>Initial discovery</i>	<ul style="list-style-type: none"> • Initial idea definition (e.g. discussing the discovery from springwise.com) • Define first steps • Develop the first concept (“CBS plus free printing”) 	<ul style="list-style-type: none"> • Motivation • Initial general feedback (e.g. entrepreneur G’s girlfriend, entrepreneur K’s father) 	<ul style="list-style-type: none"> • The inner circle slowly develops, i.e. strong advisors are located and contacted • Initial discussions and sparring start 	<ul style="list-style-type: none"> • Gathering general feedback about feasibility (e.g. CBS) • Acquire knowledge about necessary resources (e.g. printer suppliers)
<i>Opportunity development</i>	<ul style="list-style-type: none"> • Finalising development steps (e.g. duplex printing, segmenting) • Organising the development process • Networking and network expansions 	<ul style="list-style-type: none"> • Motivation (e.g. at dinner parties) • Expanding the network (neighbour’s daughter) 	<ul style="list-style-type: none"> • Discussing specifics (e.g. pricing) • Sparring and discussing input received from weak ties (e.g. database) • Part of finalising development steps (e.g. segmenting opportunity) 	<ul style="list-style-type: none"> • Providing one-time specific feedback and input (e.g. duplex, segmenting) • Expanding the network (of weak advisors, e.g. Connect Denmark and Venture Cup) • Connecting the entrepreneurial team with resource providers (e.g. NetPartner and venture capitalist)

5 Case Company B (E-Bill⁵) – Digitalised and electronically managed receipts

5.1 Digitalising receipts and offering storage and organising possibilities

“We simply collect receipts from stores and send them to inboxes to people, so they can collect their receipts and keep them. Forever.” (Entrepreneur E, E-Bill Interview I, p.1⁶)

E-Bill’s concept is to optimise and streamline the process of issuing, collecting, and handling receipts for purchased items (goods and services). Receipts to date are mostly handed out in printed-paper form, E-Bill’s aim is to digitalise receipts and enable customers to collect and store their receipts electronically on a card and/or online. By this, receipts will be available in a database, improving and easing the way receipts can be handled; for instance in cases where a purchased product has a defect and a customer wants to make use of the warranty, when a customer plans to replace a purchased item, or when an insurance company needs a receipt to fulfil a claim. Thus, receipts are handled and collected in a digitalised way, improving a row of processes.

A decisive factor for E-Bill is market knowledge about the process of how receipts are issued and handled, about safety and security regulations, meeting different software providers for the registers and credit card terminals and learning about their processes and ways of handling the data, as well as customer preferences. Thus, there is generally speaking a great need for feedback and input from a variety of different sources and stakeholders.

The entrepreneurs initially regarded their opportunity as relatively straightforward to pursue. However, over the course of the development process this evaluation changed drastically as the following sections show. The case section first elaborates briefly on the entrepreneurial partnership and afterwards describes and analyses the different development steps the opportunity went through. Hereby, a similar approach, structure, and categorisations as in the first case study have been attempted, giving, however, individual case characteristics precedence over achieving similar structure. Different examples of network and opportunity developments as well as their interrelation are provided in a second part.

⁵ The identity and name of the new venture and its founders have been masked for confidentiality reasons.

⁶ In the following the quotations from the interviews are marked as “E/C, EI/EII, p.X”.

5.1.1 The entrepreneurial partnership and their venture team

Both entrepreneurs, C and E, finished their Bachelor studies at CBS and while C is pursuing his Master of Science degree (Management of Creative Business), E is working full-time, waiting to start his Master's studies. Generating ideas and the wish to start a venture kept both entrepreneurs already during their Bachelor studies busy, "I think through the whole Bachelor studies, we have had like 200 ideas" (C, EI, p.4), but time issues and inattentiveness impeded the process of starting a venture. However, "when we got older, we became more interested in ventures and entrepreneurship (...). We saw bigger opportunities (...)" (C, EI, p.4). There thus seems to be a clear tendency that both wish to become entrepreneurs.

Both entrepreneurs describe the entrepreneurial partnership between E and C as characterised by "a pretty good connection" (C, EI, p.40), where the two partners complement each other. Entrepreneur E admits, "(...) there is a difference between us, I mean when we are together, I am more the quiet type who sits down and I think more about things. He [entrepreneur C] pushes more, he is more excited about it" (EI, p.41). This is also reflected in the disagreement and small tensions between the two entrepreneurs about the future of the project:

"Entrepreneur C and I we were not completely in an agreement about that, because he still wanted to use our own [web-]page and I still thought that using E-Box would be more efficient and it would be an obvious choice but still I can see that it will take away some of our power." (EII, p.11)

This highlights different opinions and the need for clarification within the entrepreneurial partnership. Hence, it appears as if there is need for further external input and clarifications in order to agree on further development steps and then eventually on a final overall concept.

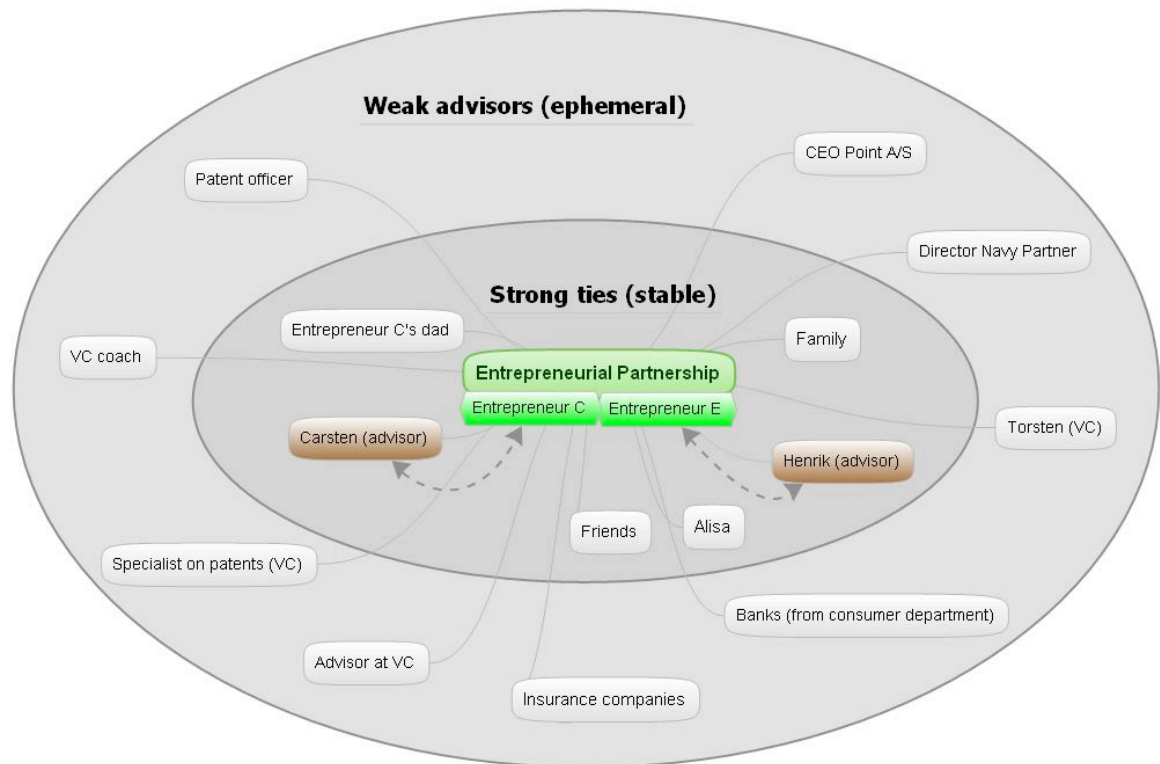


Figure 2: The network of E-Bill

The graphic illustrates the network that the entrepreneurs E and C depend on throughout the development of the opportunity and that is discussed in this thesis. The dotted arrows connecting the entrepreneur with the strong ties highlight the strong advisors the respective entrepreneur refers back to. Furthermore, the network of weak ties is not exhaustive yet highlights the most important weak advisors who had or have an impact on the opportunity.

5.2 The initial phase – developing receipt cards for digitalising and managing receipts

“All the meetings they contribute to the strategy and the concept of the idea, because the main concept, the core concept of this is just digitalised receipts.”

(C, EII, p.15)

The initial idea was developed within the entrepreneurial partnership and yet a discovery element was involved in initiating the development process as the following section reveals. Entrepreneur G has had a burglary in his apartment and successive problems with collecting all the necessary receipts in different locations, copying them, recovering police files and handing them to insurance companies. Additionally, entrepreneur C had issues with replacing a pair of jeans he had bought without being able to provide the pertinent

receipt. Both entrepreneurs have thus been in a situation in which they were facing problems with their current handling of paper receipts. Consequently a digital collection of receipts would have been helpful. Out of their own experience they started to develop the initial concept, “(...) because before that, I have not had, I had not been in so many situations where I lost a receipt in that way, but I just suddenly realised it (...) we both realised that it was quite a good idea that way to do it” (E, EI, p.14). As entrepreneur C states, “(...) I think the *idea came up*. (...) we said down and discussed what we can do and then we talked about so many things and came up with it” (EI, p.15, emphasis added), highlighting a discovery as well as development component. Objectively the opportunity for digital receipts hence existed ‘out there’, and through their own experience the entrepreneurs were able to subjectively discover it (“the idea came up”) and to initiate a development process. At the same time this demarcates the starting point for the research at hand.

Afterwards, the entrepreneurs started to discuss the concept with friends (strong ties) “And then I [entrepreneur E] started to speak with some friends about it (...). They really like to take things down, but they could not really. So, I realised (...) it might be really a good idea” (EI, p.15). Christian’s father also played a decisive part in the initial phase. Christian had run a couple of ideas through him; he usually uses him “as a validator” for their ideas (E, EI, p.6). However, most of entrepreneur C’s ideas his father declared for not being feasible or economical. Thus, when both friends and C’s father approved the receipt idea, this provided further motivation to really pursue the opportunity.

Originally, the entrepreneurs competed with their business idea in the so-called Napkin contest, an entrepreneurial case competition. Torsten, a jury member and also the Venture Cup (VC) Denmark manager, approached them and motivated as well as convinced them to participate in VC, “I think, if we did not get the reaction from Torsten (...) if he did not contact us and say: ‘I really think this is a good idea’. Then I think we almost would have let the idea go” (C, EI, p.5). This in their words “kicked off the venture” (C, EI, p.5). Both entrepreneurs highlight the motivating impact the initial feedback had, “so we got motivated to really do this, (...) because you talk to people about it” (C, EI, p.5). Hence, talking to people and receiving motivating general feedback supported the commencement of the opportunity development process.

Initially, the idea was to develop and operate a receipt-card that would be handed out to interested shops and consumers, on that card all the necessary data could be stored. Consumers can then use the card every time they shop and in that way store a copy of their

receipts on the card. However, discussing what might happen if a card is lost the entrepreneurs decided to move the opportunity further and add an online platform to the concept, where the data can be stored and managed electronically without using the card. Elaborating upon the initial phase, entrepreneur E recalls, “I think it was just Christian and I discussing ways to do it. And I used my friends as well. We were talking about what could be done” (EII, p.9). Entrepreneur E further asserts, “We created the idea ourselves” (EI, p.8). Two findings can be earmarked, the entrepreneurial partnership and discussing the opportunity within the partnership was fundamental for the first phase. However, initial feedback and motivation from family members, friends, as well as a weak advisor (Torsten) was also important for commencing the process.

5.2.1 A pricing and payment system for E-Bill

“There was a guy who came up, we did not know him, he just came up with an idea and we sat down and we thought about it. Is this possible to do? Something about the payments.” (E, EI, p.27)

In order to develop a pricing structure for the system and to generally figure out how to establish a payment system, the entrepreneurs conducted a survey involving around 1.200 respondents, which “approved the project again” (C, EI, p.19). The result of the survey was that people were actually willing to pay more than planned for the service. Furthermore, a payment structure that favours monthly or yearly payments was the result of the survey. Based on this survey the entrepreneurs development and established an initial pricing structure. An additional idea for developing the payment structure, and thus for a key part of the concept, was provided by a knowledge bearer that the entrepreneurs met coincidentally at the VC regional final. He disclosed to them the opportunity of using sponsors to finance the variable costs for handling etc. of the receipts. “We met a guy talking about sponsorships, that we might be able to use sponsorships for payment, so that we might be able to not charge anything, because we can get companies to sponsor it anyway” (E, EII, p.13). That would mean finding companies that are willing to invest money into the venture and would then receive small advertising space on the receipt documents and printouts. The idea appeared interesting to entrepreneurs, however, after discussing it within the venture team, an inner circle of strong advisors consisting of three additional members (see section 5.2), they decided to not pursue it further, since it appeared to be too difficult to implement:

“[W]hich we found interesting but then we thought about how to programme everything and then C just said, ‘It is going to be difficult’. (...) We just skipped that idea and thought that we might as well just start out charging people money for it because it is a service that a lot of people would like to pay for anyway.” (E, EII, p.13)

This incident highlights that feedback from weak advisors might be used for different purposes and with different results. Feedback can trigger initial discussions that eventually lead to a development or change, but it can as well only start discussions not resulting in any changes and thus be limited to raising awareness for different perspectives/facets of an issue. Generally speaking feedback and advice from weak advisors usually triggers discussions and bears the potential for a development step.

5.2.2 Potential for expanding the revenue streams

“(...) the difficult part is to narrow it down to be something specific, because we have to be careful that we do not lose ourselves in new service ideas within the idea and actually to focus on the idea more than on the extra ideas that come up.” (E, EI, p.9)

The entrepreneurs arranged a couple of meetings with banks and insurance companies in order to receive feedback on their idea and validate it, but also to gather input and potential knowledge for further developments of the concept, “(...) but we need to get some people to approve the whole concept” (C, EI, p.12). About one of the meetings with a knowledge bearer, entrepreneur E states, “(...) it is also a very important guy for the idea because he has got a lot of knowledge within not only his business, but other businesses as well, which could help us” (EI, p.10). A need for additional knowledge and feedback is evident here.

One example of recognising a potential development is the idea to add an additional revenue stream to the initial concept. A take-away from the meetings with the insurance companies was the possibility to protect the receipts with security measurements, i.e. the documents, with a digital lock and to include a serial number. This would allow insurance companies to follow up on every receipt, whether it had been used before and might thus be misused and subject to fraud, making insurance companies potential customers for E-Bill. The impulse for a potential development of the opportunity was initiated through feedback from a weak advisor, an insurance company employee. Although the entrepreneurs approached him to receive approval and feedback for their project, his input beyond their enquiry provoked them to consider a potential add-on to their concept.

Furthermore, the entrepreneurs' VC coach, another weak advisor, provided feedback on potential add-ons, "(...) I discussed it with the VC coach, and he said that, 'I think you should mainly focus on the receipt idea and not this extra service because that is a new customer' (...)" (E, EII, p.14). His comment made the entrepreneurs rethink the additional revenue streams from insurance companies and finally halt its development. Different weak advisors, hence, were involved in discussing specifics of the idea and served the venture with their specific knowledge. Based on the input and knowledge from two different weak advisors the venture team decided to solely focus on the receipt idea without adding extra services at first. The final decision whether to pursue additional revenue possibilities or not was nevertheless made within the entrepreneurial team, to which weak advisors contributed the feedback and input needed to make a qualified decision.

5.2.3 Exploiting existing structures and cards

"Because we went from our own card to that idea [using VISA cards]. So that was actually a turning point." (C, EI, p.16)

Entrepreneur C presented the initial 'receipt card idea' to a panel of weak advisors (examiners) during an exam at CBS. The examiners' feedback was that current trends tend towards reducing the total number of cards people use, which would run counter to the original plan of using own receipt cards, "And that [feedback after the exam] is why we dropped the idea of having an own card, because we want to follow the future" (C, EI, p.21). Instead of developing an own card, the entrepreneurs now looked into potential partners they could work together with, whose existing structure (cards, software, and processes) they could use for their concept. (Dankort) VISA card and PBS, the company operating payment systems including credit cards in Denmark, seemed to be the optimal partners for an alliance. The change of direction and a potential alliance was furthermore inspired by a meeting with the head of consumer services at a Danish bank, "(...) we went to a meeting with the head of consumer cards. And he said if you are a big player on the market then PBS might want to contact you and suddenly you are in a position of negotiation, which will help your position a lot" (E, EII, p.15). After the entrepreneurs received the above-mentioned specific input and feedback, they went back to their inner circle of strong advisors, the venture team, to discuss a potential development, "(...) actually we took everything to us and discussed it within the group [of five] and said 'okay', they think this and they think that" (C, EI, p.27). Afterwards, the decision to

change the direction was made, “And then we discussed it and then we analysed it and then we came up with a better solution [using VISA cards combined with an online platform]” (C, EI, p.27). From comments it can be concluded that the two entrepreneurs had the last word in this decision “we [E and C] make the decisions” (C, EI, p.28). Thus, the focus shifted towards establishing a system that utilises existing structures but then offers a full-scale one-stop solution, from the possibility to use a card to an online database. Analysing this chain of events it appears that after weak advisors, the examiners, provided the input and impulse for a development of the opportunity, the possibility of an adaptation was then discussed within the entrepreneurial partnership and finally within the inner circle of strong advisors, the venture team. Afterwards, the decision to change the concept, to use and exploit existing cards and processes, was made by the entrepreneurs.

The plan, furthermore, was to work closely together with Navy Partner, a software provider that manages the transaction information from credit card terminals, such as the terminals used in a supermarket or restaurant. The entrepreneurs wanted to use Navy Partner’s software to collect the information and data from the registers (card terminals) and to additionally develop an online platform to manage the data and provide their customers with the receipts and an online account.

Initially, Navy Partner, especially the director, was intensively involved in developing the opportunity. As entrepreneur E admits that “the difficult part is to narrow it down to something specific” (EI, p.9), indirectly implying the need for feedback and input from experts, such as the director of Navy Partner, that can help to specify and narrow the opportunity and concept down, which implies adapting and changing the opportunity. “Throughout the whole business plan development we have been in contact with Navy Partner and the insurance companies, because there are so many things that (...) you can not just make receipts and then think that the insurance companies they can use the receipts” (C, EI, p.30). The entrepreneurial team consciously seeks input and advice from knowledgeable persons that can contribute to shaping and defining the opportunity, “And then we discuss our idea and then they say they think it is very good, but [they ask the entrepreneurs] how would we handle the receipts?” (EI, p.33), thus initiating a discussion process that might lead to changing or adjusting the concept. Consciously seeking input and advice often implies to look or search for knowledgeable persons, weak advisors, outside the existing network, thus to expand the network.

5.2.4 Patent on the card and software idea

“(...) we can take the patent, but it is like you can take the whole idea and you can just modify it.” (C, EI, p.38)

The entrepreneurs, originally, planned to apply for a patent on the idea of using VISA cards to collect and distribute the receipts and to develop a platform and software to handle the administration process; particularly a patent on the software and platform code was under discussion. Thus, especially in the beginning, the case information and data were relatively case sensitive and difficult to obtain for the researchers.

The idea to patent the concept developed in the partnership and was confirmed during the process of participating in the VC competition, “(...) they [at VC] had a meeting about patenting ideas” (E, EI, p.41). The entrepreneurs recognised the value of a patent for their opportunity and considered a patent as a valuable option. They hence took actions to realise the option and implement a patent. The development of the opportunity or rather to patent it was a result of own knowledge and confirmation at VC, thus the entrepreneurs created this possibility.

However, during the process the entrepreneurs also realised the difficulties of obtaining the patent, “And we realised now to take a patent on the ideas is fairly impossible, it will not be possible” (E, EII, p.2). At one of the later VC coaching sessions a specialist on patents, a weak advisor, disclosed to the team that it is not possible to obtain a patent on software codes in Europe. A patent on the whole process, from obtaining the data via VISA cards over managing to resending them instead was another option disclosed by a weak advisor from the patent office. This process of patenting is, however, relatively difficult to execute since other companies have made the idea public before, which the patent office disclosed to the entrepreneurs, or other companies could change the idea slightly and in that way circumvent the patent. “If we patent the whole process and not only the software, but then people would just be able, like just change the process a little bit. And he [specialist from the patent office] said there have been so many people talking about it” (E, EII, p.2f). Thus, the entrepreneurs eventually realised through input and feedback from specific knowledge bearers, at VC and the patent office, that a patent on the software and/or process at the current stage of the opportunity is not feasible. Noticeable here is that through input and feedback, i.e. information and knowledge, from various weak ties the opportunity to patent the idea ran through a non-linear development process.

5.2.5 *Back to developing a receipt-card – the E-Box alliance concept*

“Because sometimes if you start discussing things you realise your own idea might not be as good in the end anyway. But I figured that it would be a good way to use VISA cards if possible, but still I could see a lot of complications in it, because of all these standards that we have to obey.” (E, EII, p.10)

Participating in VC provided the venture with the opportunity to spar their idea with a coach, their network was thus extended by an additional weak advisor through participating in VC. In venture C’s case this was the director of Manpower, a recruiting company. The entrepreneurs retrospectively highly appreciated the input they received from their coach. One major development or inspiration the coach brought up is the opportunity to collaborate with E-Box, an online platform where people can receive and store media electronically, for instance emails, pictures, documents etc. The coach “opened their eyes to another angle of the whole service” (C, EI, p.20) that is shifting the focus from a complete package provider (one-stop-shop) towards an intermediary, connecting the (receipt) data with the possibility to collect and store data online. Recalling the meeting entrepreneur E contends, “That was actually E-Box, he mentioned to us as a partner, because he said that would eliminate making our own website and having all the security [measurements] plus that would eliminate that we have to rent hard drive capacity (...)” (EII, p.10). After the idea was brought up by their coach, the entrepreneurs did at first not elaborate on that possibility, as the alternative option, using VISA cards, seemed more promising. Back then the entrepreneurs decided to put the idea on hold, since the overall aim was to establish a full service package, including everything from collecting the data to distributing and storing them. Receiving feedback and thereafter putting a potential opportunity development on hold as in the case of E-Box indicates that the potential to shape the opportunity exists in form of knowledge, however, the entrepreneurs need to engage in social interaction and thereafter action (or not) in order to recognise the knowledge and value.

Since the E-Bill team did not reach the VC final with their opportunity and business plan, the entrepreneurs started to reflect on their idea, additional meetings were arranged and different development steps discussed. The decisive meeting with the CEO of Point Transaction Services A/S finally commenced the next development step. After a meeting with the CEO, a company assembling and distributing Dankort terminals, the entrepreneurs realised that a receipt card would simplify the process and involve less development (costs) on E-Bill’s side. Furthermore, the meeting revealed major drawbacks and development

gaps of the former VISA card concept. The data necessary to manage digitalised receipts are very personal and sensitive, strong regulations (Payment Card Industry (PCI) standards) govern the process of obtaining and distributing these data, which would be fairly difficult and costly for E-Bill to comply with. There are two different players on the market. PBS would only be allowed to send the information about the customers such as account data, and the software companies providing software for the registers would have to send the information of the customers' actual purchases. Hence the problem is to obtain the approval to connect these two data streams.

Thus, in order to be allowed to manage and handle the data, E-Bill needs to acquire and obtain licenses and agreements which involves relatively high up-front costs. Entrepreneur E discussed this potential concept of combining the two data streams with the knowledge bearer from Point A/S, who is a specialist in that area. The information about the costs to acquire the license were obtained through a strong tie, "My girlfriend used to work in a company where they used to work with PBS a lot and sometimes when they wanted to make a webpage, database something like that, it is going to be about DKK10mio" (E, EII, p.7). As a consequence of the discussions with specialists and consecutive considerations of cost and administrative issues, the entrepreneurs are now rethinking the idea of using existing cards and processes; a change and development of the opportunity takes place once more. The CEO from Point A/S, a weak advisor, provided the input for the new perspective within the given set of means and now the entrepreneurs finalise and decide upon the next development steps within the entrepreneurial partnership. The most recent developments were thus initiated by E-Bill's VC coach and by talking to a specific knowledge bearer from Point A/S. The idea developed further through scrutinising and discussing it and the collaboration with E-Box as a platform provider is under discussion in the entrepreneurial partnership and can be considered an option again. The opportunity hence ran through an iterative process, coming back to a point where it has been before, yet further defined and shaped.

Entrepreneur E states the new development aim for the opportunity and concept: "Maybe making it a bit more lean, easier to do, not to use our own website but in a collaboration with another company" (EII, p.1).

Furthermore, the redeveloped concept would involve an E-Bill receipt-card again, since people would in combination with the card get a private membership number and thus explicitly agree to a data exchange. The CEO of Point A/S discussed this idea with entrepreneur E. This would circumvent obtaining all the PCI standards for sensitive data,

since E-Bill's customers would explicitly agree by signing up for a receipt-card to E-Bills service and the pertinent exchange of personal data. Entrepreneur E recalls the meeting with Point A/S, "Because I wanted to hear his opinion and I wanted to hear what kind of, how do you say, the software he uses. And I found out some very interesting things" (EII, p.1). Entrepreneur E, who attended the meeting alone, will now discuss the finalising issues with entrepreneur C, thus within the partnership. The current plan is to develop and launch a receipt-card first and to then slowly work on a partnership with PBS and thus to use VISA cards eventually. Entrepreneur E reflects upon the latest development step:

"We would like to discuss how to do it and if these people are [the three other team members], if we can still include them in this or if we have to make some strategic changes, still depending on what we decide to do. But I am trying to get some meetings with some other companies, some providers who make the software for the registers. Because there are a lot of them and I would like to hear their opinion about how much they are willing to do as well. I would like to try to get in contact with all the big ones. Now we just, we have been in contact with a couple now and I am still looking forward to hearing from another couple of people I have contacted. So, I would like to hear what their interest in this would be and if it would be possible to collaborate with them." (EII, p.4)

This statement highlights different needs and implications for the opportunity; the entrepreneurial team needs to agree upon a general direction for the opportunity, for the team, as well as for future networking and network expansions, i.e. especially the contacts and knowledge bearers necessary to shape the concept. Overall, the idea thus developed from a simple card to a complicated idea involving a sophisticated all-encompassing concept back to a simpler concept in alliance with another company, where the final development steps appear to depend on establishing network contacts and receiving the necessary feedback and information.

5.3 Network expansion and recruiting the venture team

"It is nice to have like a supporting team (...) who are more experts on the area then your friends for instance are." (E, EI, p.28)

Networking was one of the main interests the two entrepreneurs had in Venture Cup (VC), as entrepreneur C admits, "That is one thing we liked about being a part of VC, because you meet so many people. (...) People that you have never met before. And I think it is

nice to get some more networking done at the workshops” (EI, p.37). VC was a helpful tool for the entrepreneurs to seek feedback and to actively work on expanding the entrepreneurial network. Through social interaction and talking at VC, they were also pointed to the need to expand their knowledge and skill base, “(...) and then they said [at VC] that you [the entrepreneurs] have to find more people within your company to develop this” (C, EI, p.7). Since the entrepreneurs lacked key knowledge such as IT development skills, they were recommended to internalise the skills and hence to recruit the competent people. The two entrepreneurs decided to follow this advice, started searching for the right persons, and finally ‘recruited’ three more members to the venture team. Thus, the ‘venture team’ now consists of five members in total. In addition to the two entrepreneurs, Carsten is responsible for the web design and layout, Henrik has IT and brand management knowledge and assists with marketing as well as technical issues, and Alisa joined the team to consult and provide input during general discussions. The entrepreneurs knew all three members before as friends or through participating in VC. Entrepreneur C reasons that “(...) because if you get people from your own network, you can cooperate a lot better” (EI, p.7). Besides the knowledge the new team members bring to the venture, trust and thus the ability to discuss sensitive information also played an essential role in forming this inner circle of strong advisors.

Overall, the team collaborates on a variety of issues (e.g. designing an online platform) and discusses major development steps (e.g. the decision to use VISA cards). Nevertheless, the entrepreneurs emphasise that the three other team members merely have support functions and that important decisions are finally made within the entrepreneurial partnership, since one distinguishing characteristic between the entrepreneurs and the other team members is that “(...) because it is our idea we have a different driving force behind it” (E, EI, p.8). Still, entrepreneur C admits, “they have been working hard on this, telling us all the things we did not know” (EI, p.8). Entrepreneur E describes their function, “They are like a support unit. (...) It’s nice to have like a supporting team (...) who are more experts on the area than your friends for instance are. They can say this sounds like a good idea” (EI, p.28). Hence, they bring both expertise to the venture and are used as sparring partners to approve or disapprove of ideas.

This recruiting of additional people to the venture can be regarded as the first network expansion of the venture triggered by a weak tie (VC). It developed out of existing ties, from work or business school (Henrik and Carsten), as well as through participating in VC (Alisa), thus they recruited from both strong as well as weak ties. It seems as if the team

members have developed into an inner circle of strong advisors bringing together different skills and sets of knowledge that complement each other. Furthermore, it appears that the inner circle of advisors is relatively tightly knit to the venture and opportunity.

Since the entrepreneurs became aware throughout the development process of their need for feedback, validation, and development inputs, expanding the network became crucial to them. Additional network expansion in E-Bill's case were, however, less obvious; the entrepreneurs pursued a more active, self-managed approach. A major approach towards expanding the network involved cold calling potential weak advisors, such as banks, insurance companies, or PBS. Thus the entrepreneurs themselves were and are actively and persistently expanding their network of weak advisors. Generally speaking, their approach towards networking is hence relatively straightforward, "(...) that is actually how we get all our meetings. Just send an email explaining what we do and then we meet up with them" (E, EII, p.5).

By the same token, the entrepreneurs state that one of their strengths is networking, knowing the right people and how to approach these, as entrepreneur E asserts, "we know who to contact. And (...) actually how we should interact with all these. But sometimes, the technical processes, they [(IT) experts] can say, it does not have to be that difficult as you say it is" (EI, p.25), thereby demonstrating that networking is a well-performing technique to improve their venture in (knowledge) areas interspersed with weaknesses.

In summary, the entrepreneurial network and network expansions had decisive influence on the development path of E-Bill's opportunity. Network ties contributed with feedback and input to the development path. Network expansions initiated by existing network ties were less salient than in Freeprint's case, the entrepreneurs themselves are more actively expanding their network.

5.4 Network contribution to the opportunity development

"We have a pretty large network. And it spans from one end to the other. So it is like when we come around and speak to people and we explain about the idea, it can be anybody" (E, EI, p.35).

Entrepreneur E highlights the importance of expanding the network of weak ties and on consecutively receiving feedback on the opportunity and business concept, "(...) but we need to get some people [banks and insurance companies, i.e. weak ties] to approve the whole concept" and "(...) you need some people from the outside sometimes (...)" (EI, p.12 and 18). Direct feedback and input from different knowledge bearers, weak advisors,

led to multiple changes of the direction of the opportunity, for instance developing a card and/or developing a platform, to patent or not patent the idea etc. Entrepreneur E accentuates the importance of feedback from weak as well as strong ties that are vitally knowledgeable in certain areas, “We just bounce back and forth, trying to find the best way to do it, but we keep getting different input from the experienced people with more knowledge, so they keep giving us all this information that we then try to think about” (EII, p.15). The importance of knowledge bearers is highlighted here; the case also reveals that these knowledge bearers are most often weak ties (VC coach, patent officer, insurance company employees), contacted only infrequently with a specific purpose in mind such as receiving feedback on the receipt-card idea or discussing a potential collaboration. With some key knowledge bearers, only one or two meetings contributed significantly to the development path of the idea. However, the number of different knowledge bearers contacted was extensive, making the entrepreneurial network wide-ranging and yet of ephemeral nature. Highlighting the temporary nature of some of the weak ties, entrepreneur E contends, “(...) and the business partners [in this case Navy Partner], the essential partners can change” (EI, p.20).

Talking about the contribution of networks, the entrepreneurs state, “And then they [advisors] can say your plan is not possible, if you change it a little bit, it will be possible, but this plan is not possible” (E, EII, p.10) and “That is why we talked with the banks, because they can tell us what we should have on the page and what we should not have on the page” (C, EI, p.11). Awareness of the need for advice and feedback and thus information and knowledge from (weak) advisors is noticeably salient here.

Weak ties are made use of to provide validation of the opportunity as well as to continuously add missing knowledge, “We need them to approve and certify that it is possible. Because when we started we were not sure that it was (...) possible to do it the way we wanted it to do. But we were sure of the people that we had to contact” (E, EI, p.26). Entrepreneur C adds to this statement, “That they [the contacted people] knew” (EI, p.26) and hence that others could provide the missing knowledge. Convincing feedback is then considered for developing the opportunity, “We have the whole package but then we take things in and then we modify it, when we see that there could be modifications [improvements]” (C, EI, p.36).

Through participating in VC E-Bill got published in different newspapers and gave a radio interview. Besides raising awareness for the venture and providing motivation for the team, the interviews also made the entrepreneurs reflect upon their idea, “you sit and you

discuss some things and suddenly new things come up as well” (E, EI, p.18). Furthermore, talking to people can help to reflect upon the concept and opportunity and consequently lead to further redefining and shaping it. This assists the entrepreneurs to see and evaluate issues they would not consider as important without talking to people, “you easily become blind when you concentrate so much on one thing” (E, EI, p.18).

Summarising, through actively growing the network the entrepreneurs developed the idea to the point they are at today. A rather naïve approach towards the whole opportunity and venture in the beginning gave way to a realistic and implementable concept. Initially, the entrepreneurs thought that they were able to execute on their idea alone, however, during the process they recognised the value of network members and their input and as a consequence started to actively build and use their network. E-Bills network initially consisted mainly of friends and family (C’s father) who assisted them with motivation and feedback, during the development process the entrepreneurs started to actively and consciously expand their network, which eventually contributed significantly to the development of the opportunity.

5.5 Conclusion E-Bill

“The whole idea has been very simple from the beginning and until now it has been through a total make-over” and “actually we went from simple to very complicated and to, I would say, more simple now.” (C, EI, p.5)

E-Bill’s opportunity evidently went through a non-linear development process that shaped and redefined the opportunity or put differently that *enacted the opportunity*. Entrepreneur E supports the opportunity creation and development argument, “But it still is, that is the fun thing about having ideas, you keep developing” (EII, p.17). Eventually, E-Bill’s idea developed from merely an initial vague idea (collecting receipts) to a well thought through concept where major milestones and challenges have been identified. “So every time we talk to a company or a man who knows about the IT industry better, then we get new ideas all the time. I mean not new ideas but better inputs” (C, EI, p.25), this explicitly highlights the need and usefulness of input and advice from weak advisors and how this in combination with *social interaction* can lead to opportunity development. In parallel to the opportunity the *network of E-Bill also expanded*, whereas in the early stage especially strong ties such as family and friends were involved in the process, participating in VC and proactively arranging meetings with weak advisors significantly grew the network and thus input and development possibilities for the venture. The network and the opportunity

grew in parallel and at the same time they influenced each other. While the opportunity became more sophisticated and thought-out, the network of weak advisors with specific knowledge also expanded.

Feedback and input from different ties, especially weak advisors and knowledge bearers, played a decisive role in creating the opportunity. Discussing the idea and by that receiving feedback is highly appreciated by the entrepreneurs, “Then still you always have some people at work you discuss it with. And you always have some people within your friends that you always discuss it with (...)” (C, EI, p.39). Social interaction, hence, often results in feedback and input that can contribute to the opportunity development path. For the entrepreneurs it seems nevertheless difficult to get all the necessary feedback they need, and to expand their network to the most decisive ties, and thus to “put all these different factors together (...)” (E, EI, p.10), yet “I [entrepreneur E] talk to people about ideas and we get a lot of feedback from those that we have meetings with because they are obviously more experienced than we are” (EII, p.7). Knowledge and experience appear to be decisive characteristics in E-Bill’s case for implementing the input of weak ties.

In a similar way, elaborating on both the discovery element in the process and the need for input and feedback from specific knowledge bearers to develop the opportunity entrepreneur E states, “You can only have the idea, but when you are not a specialist within the different areas, it is difficult to imagine how the process is actually working” (EI, p.13). Thus, on the one hand it seems to be a difficult task to really gather all the feedback, information, and input necessary and to identify the right knowledgeable sources, but through talking and interaction the idea evolves. The entrepreneurs nevertheless emphasise that the basic idea has not changed, only modifications or developments to this idea took place, entrepreneur C states, “the general idea has been there from the beginning, but from the beginning until now all the changes come from input from outside” and “I think no matter what you do, you always get small inputs from other people” (EI, p.36). The set of means – the idea of collecting receipts and offer a way to manage and handle them – is given to the entrepreneurs, yet acting, receiving feedback as well as new information leads to re-combining the set of means and hence to a potential new development or adaptation step.

Looking at the different steps and the process of adapting and changing the idea and opportunity, one can identify the following process and structure for E-Bill:

“(...) actually we took everything to us and discussed it within the group [of five] and said ‘okay’, they think this and they think that. (...) We wanted to get

all the inputs, no matter if you are a professor, customer, student, or whatever.

Everything we get we actually discuss.” (C, EI, p.27)

This quote highlights two main issues, first, input can come from all kinds of ties, strong and weak ties, advisors and non-advisors, and secondly, input is actively sought and highly appreciated. In order to evaluate input and feedback an inner circle of advisors is contacted and a decision made within this circle. Two characteristics of the network are also emphasised here, whereas the circle of strong advisors is established and stays relatively stable, the network of weak advisors changes and adopts according to the needs of the opportunity. The network of weak advisors, hence, seems to be of ephemeral nature. The following quotes support the above-mentioned arguments:

“(…) and then when we get something, a new angle or a new idea, we discuss it with friends, girlfriends, parents,... And we know who to contact and how we should interact (...). You always know which people to talk to about the project (...) that you are going to someone seeking really thorough certain input.” (EI, p. 24, 26, and 39)

The entrepreneurs thus seem to be aware of their need for input and feedback, “everything has to be discussed in thorough detail” (C, EI, p.23). Furthermore, actively approaching strong ties to discuss sensitive finalising steps and details is important to the entrepreneurs, since “I think it is good to have it within the company, because I think it is like all start-up people do not go to all other people and say, ‘Hi, we have this and this idea’” (C, EI, p.28). This is also expressed in the entrepreneurs scepticism towards people who want to know more about their project, “we are like, ‘why do you want to know about our project’” (E, EI, p.37).

Summarising the future of the opportunity, entrepreneur E states, “So, everything depends on who we can collaborate with, it depends on PBS. I have been trying to get a meeting with them, but it is a bit difficult to get a meeting with them” (EII, p.8). A need for feedback and advice from weak advisors is salient, nevertheless the entrepreneurial partnership eventually decides upon the direction for the opportunity: “So, right now we are a bit confused about what we want to do. I am going to speak firstly to entrepreneur C when he gets back and when I get back, and then we have to discuss exactly where we are and what we want to do (EII, p.11)”.

Table 2: Overview of network members and their respective functions for E-Bill

Phase	Network ties involved and their impact and influence			
	Strong ties			Weak ties
	Entrepreneurial partnership	Family and friends	Inner circle of strong advisors	Weak advisors
<i>Initial discovery</i>	<ul style="list-style-type: none"> • Initial idea definition (“both have had a need for digitalised receipts”) • Develop the first concept (“card plus database”) • Define first steps (who to contact) 	<ul style="list-style-type: none"> • Motivation (“they approved it”) • Initial specific feedback (“Christian’s father as a validator”) 	<ul style="list-style-type: none"> • Recruiting an inner circle of strong advisors (the three additional team members) 	<ul style="list-style-type: none"> • Positive feedback, approval, and motivation (Torsten from VC) • Expanding the network (e.g. through VC)
<i>Opportunity development</i>	<ul style="list-style-type: none"> • Discussing and finalising development steps (e.g. sponsorships, card partnerships) • Creating developments (patent) • Deciding upon organising issues (further need for the three team members) 	<ul style="list-style-type: none"> • Motivation 	<ul style="list-style-type: none"> • Discussing the specifics (e.g. PCI standards) • Sparring (discussing input received from other weak sources, e.g. sponsorships, collaboration with E-Box) • Part of finalising development steps (card partnership) 	<ul style="list-style-type: none"> • Providing one-time specific feedback and input (e.g. partnership, problems with PCI standard, patent) • Expanding the network (of weak advisors, e.g. the coach provided by VC)

6 Case company C (Advisor⁷) – Pharmaceutical brokerage and consulting services

6.1 Consulting and business services for the pharmaceutical industry

“Advisor is a consulting and business services firm. It offers pharmaceutical-focused consulting and business services for stakeholders in the pharmaceutical industry (...) by utilising information, knowledge, experience, contacts, and networking to identify opportunities and solve problems.” (Advisor Business Plan, p.5)

Advisor and the entrepreneurial partnership originally started with three different yet closely connected entrepreneurial ideas in the area of pharmaceutical brokerage and

⁷ The identity and name of the new venture and its founders have been masked for confidentiality reasons.

advisory services, although the entrepreneurial team eventually decided to only pursue one of the three initial business opportunities. The initial business idea relies on linking two markets: the highly competitive European pharmaceutical market with a strong focus on price and quality of products, and the Asian pharmaceutical manufacturing companies that lack required marketing power and knowledge to enter more advanced high-priced markets. Advisor links these two industries with their services.

The original three ideas include a business development service trading pharmaceutical and biotech products between European pharmaceutical companies and Indian manufactures and thus a link of low-cost supply of pharmaceutical products with high-priced demand in Europe. The second part involves offering consulting services in the same area and for the same clients, such as licensing-, sourcing-, and negotiation advice, as well as benchmarking, and contract enforcement services. The third idea encompasses investment advisor services, such as acquisition-, investment-, and spin-off advice within the pharmaceutical industry, especially for the Indian market. Until the end of this study, a final opportunity has not been decided upon. At the last interview, a new concept based on consulting services between Europe and Asia was presented. Further need for discussion was evident, as the two entrepreneurs had not reached consensus on this concept.

A similar approach, structure, and categorisations as in the first two case studies have been attempted for Advisor as well. However, Advisor was relatively difficult to research as the information shared with the researchers was rather broad and vague leading to relatively superficial data in comparison to the two other case studies. Additionally, during the data collecting period Advisor's concept changed radically from the first interview to the second and the entrepreneurial partnership drifted slightly apart, revealing different opinions about the future direction of the venture. Nevertheless, different examples of network and opportunity developments were provided and are described and analysed consecutively.

6.1.1 The entrepreneurs' backgrounds and their partnership

Both entrepreneurs are currently finishing the MBA programme at Copenhagen Business School (CBS). Before they started the MBA programme, both entrepreneurs already gained work experience for some years and both pursued advanced education (B.Sc. respectively M.Sc.). Entrepreneur B has extensive experience within the pharmaceutical industry. He dealt with business-to-business marketing and has acquired a far-reaching network within this industry. Entrepreneur H has acquired experiences in consulting and

investment advisory services. Overall speaking, the two entrepreneurs bring together a fairly stable and established network of knowledge bearers within India and Europe, as well as potential clients within the pharmaceutical industry for their venture.

Initially the entrepreneurs worked together efficiently and established a working partnership where the roles were clearly defined, “I have an idea and he [entrepreneur B] is the one who goes ahead to implement most of it” (H, AI, p.1⁸). Entrepreneur B is rather responsible for executing the idea, whereas entrepreneur H was the one that came up with the initial idea. They both put a strong emphasis on them “doing this head to head” (H, AI, p.1). Entrepreneur H describes the partnership as follows: “But of course, if he is the face representing the Europe side of the business and I can utilise or leverage some of my let’s say Indian contacts” (AI, p.2). Furthermore, their relationship is described as very close and trusting, “So I would say we are very close in other areas, like our career developments, decisions in personal life etc” (B, AII, p.18).

The entrepreneurial partnership between the two entrepreneurs is intricate to describe, whereas the first interview revealed complementary skills and the ability to build ideas together, “And then as entrepreneur H said, we sat down, we met a couple of times, we discussed ideas, and due to his knowledge about the Indian market we really took off” (B, AI, p.2), the second interview rather disclosed that the two partners had different views for the future of the company, and that further collaboration would only be possible if the partners were able to agree on a general direction for the opportunity. As entrepreneur H reveals, “But like I said: this is still something that we are resolving amongst ourselves. (...) this is part of the core consulting, but not part of a core focus at this point of time for me. That is something that we are discussing because I feel those among things that B should gain out of in his independent capacity (...) because then it is not partnership so much as individual person” (AII, p. 25f). In this last interview the entrepreneurs also disclosed that engaging full-time in Advisor after graduation is merely considered an ‘alternative’ to employment, “And I have had interviews and discussions about potential offers. So has H. So we are not 100% sure today if we go forward with this idea or not. And if we do go forward with this idea, will it be H alone or me alone or we together” (B, AII, p.26).

Concluding, it can be assumed that the two entrepreneurs together bring in knowledge and expertise in the international pharmaceutical business-to-business trading market, close connections to many of the leading international pharmaceutical companies,

⁸ In the following the quotations from the interviews are marked as “B/H, AI/AII, p.X”.

connections to investors, access to capital, knowledge, and connections to the Indian business environment and infrastructure. However, the partnership also seems to bear conflict potential and whether or not the venture will be pursued is still uncertain.

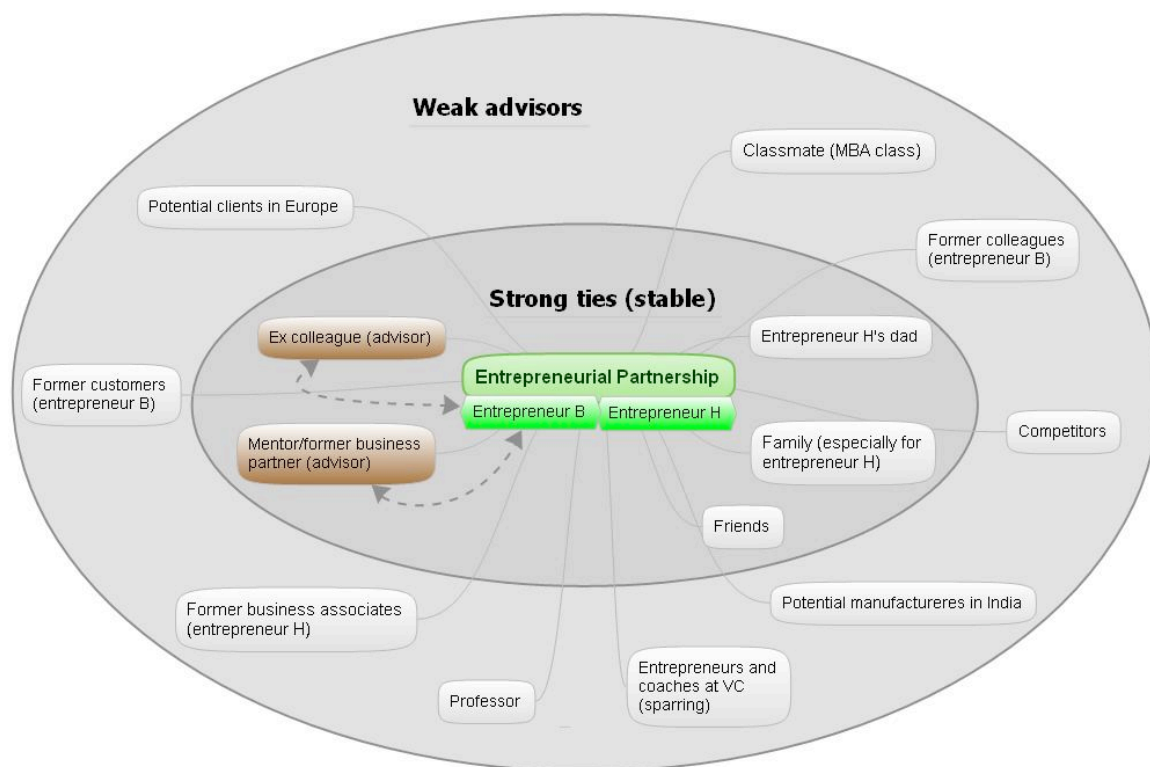


Figure 3: The network of Advisor

The graphic illustrates the network that the entrepreneurs B and H depend on throughout the development of the opportunity and that is discussed in this thesis. The dotted arrows are connecting entrepreneur B with his strong advisors, entrepreneur H does not reveal similar strong ties. Overall, the network ties for Advisor can only be broadly and sketchily described.

6.2 Classroom discussions leading to an entrepreneurial opportunity

“I think it is one of these exuberant moments when you suddenly realise you are hitting on maybe something big.” (H, AI, p.2)

The idea to establish a pharmaceutical trading and consulting company originated in an MBA course called “Entrepreneurial Mindset” at CBS as well as through discussions about future employment opportunities and the different experiences and backgrounds of the entrepreneurs during the MBA programme. In this MBA course that both entrepreneurs were attending the MBA students had to present their individual venture ideas. Initially,

both entrepreneurs had two different ideas that were related to their pertinent background and experience. Entrepreneur B had experience within the pharmaceutical industry and was looking for the right idea to combine this with opportunities in Asia; he presented an idea similar to the eventual venture idea yet with a focus on the French market. After entrepreneur H introduced an idea of connecting European and Indian companies, entrepreneur B addressed him to discuss potential intersections of their ideas. “And after the class we approached each other (...) and I said, ‘could this idea apply for the pharmaceutical industry?’” (B, AI, p.2). A *discovery* element can clearly be identified in this process. Summarising the initial idea finding process entrepreneur H states:

“(...) I was telling him about the opportunities in India and I was trying to get what entrepreneur B had to say about how he would react to maybe consider opportunities outside of Europe. (...) So at that stage entrepreneur B took over and he started to look into a few things and took input from me and started to develop the idea.” (AI, p.1)

Thus, through discussing and communicating they talked the opportunity into existence when they both grasped the joint potential of their business ideas. Discussions within the partnership were hence essential to initiate the process. A development component can also be earmarked in this early stage. The entrepreneurial opportunity was enacted through interaction and consecutive collecting of ideas. During the initial phase they began to talk about implementation and execution issues, which, however, mainly dealt with developing the idea:

“(...) at that stage we said, you know, how do we pursue this, what do we do, and then we were looking at the process of the MBA and the steps that the MBA was sort of throwing at us in terms of how do we name this, how do we brand this, what are the things that are involved in making this happen, how do we go to India, at what stage, how do we set up meetings and how do we market a little bit and see how people are reacting to it.” (H, AI, p.2)

After the initial idea finding process a row of open questions were identified that were salient to be answered. Important for Advisor’s initial idea is that it originally consisted of three different parts as mentioned previously.

6.2.1 Developing the regional focus

“So that is the core part of our idea in the beginning. To be an agent or broker or trader between generic producers in India and generic marketing companies in Europe.” (B, AI, p.3)

The initial idea encompassed three different complementary parts: trading, consulting, and investment advisor business. The main reason for a three-folded concept was to gain experience and financial resources by engaging in the consulting and investment business right from the beginning and then to slowly scale-up the trade and brokerage service part. The fact that entrepreneur B was already working part-time as a consultant for pharmaceutical companies amplified the decision to engage in a three-folded opportunity. “So the second part, consulting, was considered as a short term not scalable idea, but still short term revenues in which we would do consultation for pharmaceutical companies and for outsourcing companies (...)” (B, AI, p.4). The entrepreneurs, furthermore, saw another advantage of working as consultants from the beginning, “(...) if you are able to talk to the client and see what they (...) get information or give them information, then you can develop a database or leverage on this side which you can use in the future” (H, AI, p.5). It seems as if the entrepreneurs realised the value of establishing a solid network early on. Hence, the overall aim was to establish the trading service and to exploit the other two service ideas to contribute to the overall opportunity.

Originally, the idea was to work as broker for pharmaceutical products only in Europe, but as the idea grew the focus shifted towards all companies in developed countries interested in sourcing their products, which would especially include US companies, “(...) we wanted to sell the Indian products to all countries interested” (B, AI, p.14). A meeting with their professor, however, provided the first step into restricting the business regionally again. The professor, a weak advisor, advised them to keep focus and narrow the idea down, which led them to change their focus on India and Europe only. “We discussed the idea with our professor to get feedback” (B, AI, p.6). Recalling the meeting the entrepreneurs highlight the main contribution, “He said something like, ‘(...) what is your core value that you are going to offer to your customers?’” (H, AI, p.7). Until that conversation the entrepreneurs planned to connect manufacturers from India and potentially China with European and US customers, however, after the meeting with the professor they readjusted their concept and newly defined their core focus. Entrepreneur H saw that due to his contacts in India and his partner’s expertise in the pharmaceutical industry, the entrepreneurial venture would have a good standing in India. Entrepreneur B

on the other hand observed that they should “maybe keep focus on European customers, because that is one area with the same quality specifications. And that is where my most contacts and knowledge is” (AI, p.7). He seems to be aware of the potential information and knowledge his existing ties can contribute to the development process. As a result the opportunity from then on was solely designed for Indian manufacturers and European pharmaceutical companies. The idea developed from a relatively focused idea towards an all-encompassing opportunity and, initialised by input from the professor, back to a more focused concept that took into account that the entrepreneurs’ main networks are situated in India and, even more importantly, in Europe. Thus, the opportunity initially passed through different stages and steps as well as network ties influencing it.

6.2.2 Eliminating one business focus and defining potential clients

“So we kind of figured out that this is a service we cannot offer. There are no clients, at least at this stage. So we kind of dropped that idea.” (B, AI, p.11)

The entrepreneurs wanted to test the feasibility of the investment advisory idea and for that purpose conducted a survey in Iceland. “We did an interesting test on our idea” (B, AI, p.11). They sent out e-mails offering a service for investment opportunities in the Indian pharmaceutical market to 20 top investors, around half of them closely or loosely connected to entrepreneur B. The survey provided them with mixed respectively negative feedback, “And we almost got no response out of it. (...) There are no clients, at least at this stage” (B, AI, p.11), which led them to cede this part of the opportunity package. Thus, this (non-)reaction of weak advisors provided the trigger for this development. It was then, furthermore, decided in the entrepreneurial team that the consulting part comes naturally with the broker and trade services and is not worth pursuing individually. As a consequence the initial opportunity consisting of three individual service ideas was reduced to one main concept, pharmaceutical trade and brokerage services.

Initially, medium sized European pharmaceutical companies were identified as key clients. However, when the entrepreneurs met up with them, they learned that “They are interested, but we need to be able to offer specific values and have these competencies to be competitive with others” (B, AII, p.13). From large pharmaceutical companies they received the feedback that these were not interested in their service, while a meeting with a very small potential client resulted in a first request: “And they gave us a project on the first meeting. They said can you get this drug for us cheaper than we are currently paying for it. And they happily waited for an offer” (B, AII, p.13). Hence, feedback and reactions

from differently sized clients helped limiting the potential targets for their services. Through interaction with potential clients the entrepreneurs were able to narrow down their focus.

6.2.3 *From an Indian to a partner focus*

“Well, for me, the idea has really shifted from trading to the consulting part. Only because consulting part is immediate, it is real, more tangible, it is right there right now. But of course the difference in that is that it is B driving that side, it is not me.” (H, AII, p.5)

At the last interview, entrepreneur B presented a new development of the opportunity, one that he has developed independently from his partner H for an exam. It includes three synergetic elements: consulting, business development, and outsourcing services, however with a focal point on consulting in the shorter and outsourcing services in the long run (cf. B, AII, p.25f).

Entrepreneur B recalled feedback from different network ties that influenced the potential new development. According to potential clients, the outsourcing business takes longer time and more money to realise than the entrepreneurs expected (cf. B, AII, p.6). Furthermore, the strongest European competitors revealed that they are already providing outsourcing services, eradicating what was believed to be a first mover advantage of Advisor’s business concept (ibid). Further, Asian pharmaceutical manufacturers (outside of India) have started competing with India, an information Advisor received during “private dealings with companies” (H, AII, p.10). Finally, entrepreneur B attended an international management course that was “an eye opener into new countries in South East Asia, at least for me” (AII, p.15). Additionally, the consulting business, which he is currently working in part time, seemed “more tangible than the outsourcing business” to him. “That was an idea for me to reduce the risk and make sure that I will be able to pay my rent after three months of start-up instead of doing more entrepreneurial exercises and wait for maybe one, two, three more years until cash flow starts” (AII, p.6), and hence a way to reduce uncertainty commonly connected to entrepreneurial endeavours. Hence, general as well as specific feedback and knowledge from different weak ties triggered a rather far-reaching adaptation of the opportunity. The adaptation now needs to pass the entrepreneurial partnership, the partners have to discuss whether and how to pursue it.

The new focus of the venture is now on choosing the right partner, “It is more important to choose the supplier instead of choosing India as a country to operate in” (B,

AII, p.14). This was influenced by the advice of the professor, slightly re-interpreted, “One of the points from the professor was that we keep focus on these services we offer and the products we are selling. (...) So he did not necessarily tell us to focus only on India as a country, but more like have the focus of the business model pretty well specified” (B, AII, p.8). Entrepreneur H comes to the same conclusion, “I think it just makes business sense to us” (H, AII, p.9), arguing that it is crucial to meet the clients’ interest. Entrepreneur H is, however, against pursuing the model that B set up for his exam:

“(...) the only immediate consulting element that comes into the picture is just a ad-hoc pharmaceutical consulting, which he does. So for me that is more his personal space which is not... I mean does not need to be part of Advisor, because clearly that is not... to me that is his revenue stream and things he can do in his part time which do not really... should not reflect at this time, because it’s not a level playing field between two business partners.” (AII, p.7)

The new development, triggered and influenced by a range of weak ties, bears potential for conflict. The two entrepreneurs are still considering different alternatives for finding a mutual solution, “Should we split the consulting out of this idea and I work on that in my free time until the outsourcing revenues are great enough to pay salaries or should we keep it in there and I take care of the consulting and you take care of the outsourcing services. That is something that we have not really puzzled together” (B, AII, p.26).

6.3 Networking and network contribution

“I made phone calls to some of my key customers from my previous job. And then we got insight from them.” (B, AI, p.10)

A business trip to India was conducted in the early phase of the opportunity development to get in contact with potential business partners, and to gather further feedback on the feasibility of the project, “When I was there [in India] I arranged some more meetings that came out of people that I knew” (H, AI, p.13). Through entrepreneur H’s existing network the chance to gather feedback from weak advisors was given. With the help of entrepreneur H’s father they placed an advertisement looking for potential Indian pharmaceutical manufacturing partners in a well-known Indian newspaper. The responses were not all from the pharmaceutical industry, but entrepreneur B nevertheless comments on the feedback, “we did get some interesting meetings out of it and a few I would say potential customers” (AI, p.12). Furthermore, “When I was there [in India] I arranged some more meetings that came out of people that I knew” (H, AI, p.13), through

entrepreneur H's existing network the chance to gather feedback from weak advisors was given.

The entrepreneurs also actively expanded their network and added specific knowledge bearers who could provide them with feedback and input. Referring to his trip to India, entrepreneur B elaborates, "Well, for example, I met investment guys, I jumped into a pharmacy and spoke with the owner of the pharmacy, and that led to a guy who is from the North of India and his family is in connection to manufacturing companies. These were like spontaneous contacts" (B, AI, p.15). The trip to India involved hence the use of existing network ties, the expansion of the weak tie network as well as feedback from weak advisors.

Additionally, entrepreneur B made extensive use of his existing European network within the pharmaceutical industry to gather input for the opportunity development. Entrepreneur B reflects upon the information and input of former business associates and colleagues:

"When we had telephone conferences with my ex colleagues and friends within the industry, (...) he said that exactly this idea had crossed his mind and he has even proposed it to his company, but they did not pursue it and he said this is something that is very valuable and is needed in the market. (...) And the other one has invited us as well to discuss our idea and give us feedback and more information. And then we also had telephone conferences with potential clients in Europe, so I made phone calls to some of my key customers from my previous job. And then we got insight from them. What is needed, if there is room for improvement on these services etc. so these were quite important steps in the development of the idea." (AI, p.10)

Both in India and in Europe, the entrepreneurs mainly utilised their established network to receive feedback on the opportunity and input for developing it further. To summarise, the *existing* network of primarily weak advisors contributed with feedback and input during this phase of the development process.

Advisor also participated in the Venture Cup competition, not at least to receive feedback. Entrepreneur H is, however, critical towards the VC competition and its impact, "I was a bit hesitant in terms of the process of VC and for me two minutes, I did not know if that was good enough for someone to know if it is a good idea or not a good idea" (AI, p.6). At VC, they also experienced some negative feedback, however, instead of discouraging them, the feedback "(...) threw him [B] on a different level of understanding

of how do we go about this, how do we think about this again” (H, AI, p.8), thus the (negative) feedback from weak advisors provoked reflections of the actual entrepreneurial opportunity. Entrepreneur B himself claims, “For me it was more motivating than demotivating (...)”(AI, p.8).

In order to gather and discuss feedback, entrepreneur B involves mainly two strong advisors, a mentor and ex-colleague from the pharmaceutical industry, whom he calls once a month and that contribute to the opportunity in different ways. The mentor “has a helicopter view about the industry, he knows potentials. And he is willing to contribute to our business idea, because he is living his dream through us in a way” (AII, p.19), while the ex-colleague provides B with “latest information from inside the industry” (AII, p.18) “and he told me about some let us say business ideas that we might want to discuss” (AII, p.20). The mentor on the other hand “asks us totally different questions I would say, because he is not interested in joining us, but he is motivating us to go forward” (B, AII, p.20), therefore offering rather general advice on market trends and needs of pharmaceutical companies. Because of their frequent contact and their function as sparring partners, these two network ties can be considered strong advisors, they provide specific, expert knowledge, and feedback for the opportunity. Contrarily, entrepreneur H rejects the use of strong advisors to discuss the opportunity, “If you are running an idea and of course the only reason why I would want the idea of a third person is if I was slightly uncomfortable and maybe wanted another view“(AII, p.16).

Entrepreneur B describes the informal feedback process involving his strong advisors, “So I call them in the evening, or during the week-ends, or when they have lunch break or something or when I have something else to discuss about. And then I mention something and they mention something and then (...) we [H and B] just take a lunch together or have a power chat (...) so that is how we share information” (B, AII, p.21). Feedback is often gathered in testing service ideas (cf. AII, p.22).

Whereas entrepreneur B states that the team has “definitely” (AII, p.20) taken the feedback of both his strong advisor into account (yet without remembering specific events), entrepreneur H seems more reluctant in admitting, “I’m quite interested in what they have to say (...) I think they influence us, but I do not think we take everything they say directly. We look at their views and we decide what we believe is best” (AII, p.21). Entrepreneur H compares the individual attitude towards networking and using feedback, revealing two opposing mind-sets:

“My network is fairly stable in terms of the people I would ever discuss with. It would predominantly be my idea and maybe some ideas from other people. In B’s case, he interacts with a lot of people, so he has a much more broader vision of how things should go. (...) He has more analysis, so his report is more in line with how the business would be profitable (...) His picture is realistic, mine may not be as realistic. So in a sense I agree, maybe the networking idea is good and maybe you change your ideas based on how the network drives you.” (AI, p.2f)

However, networking is not in line with entrepreneur’s understanding of entrepreneurship:

“But the flipside of that is that you are not really driving your entrepreneurial spirit. Because then you are just going along. Well, that is how it works, really, if you think about it. Because if you have never really been from that background where you have been an entrepreneur (...) and you take input very easily and then you change at every stage (...) then you lose what you have to offer to the idea.” (H, AII, p.2f)

A similar pattern between the partners exists with strong ties. Whereas entrepreneur B states that his family’s feedback provides him with “motivation and support. (...) I would probably not take their advice on business decisions” (AII, p.17), entrepreneur H admits that his family has helped with establishing connections in India and his dad supported them in the initial stage. Usually though, he insists, he does not take advice from his entrepreneurial family, because “This idea is fairly far away from what my family does” (AII, p.17).

Entrepreneur H generally refers back to network ties that he considers knowledgeable, “If we speak to someone for two minutes, they are opinion leaders, but in a very general sense. That would not change our idea so much. As if there was someone from the industry who has been in the business and who knows B or who knows me and who listens to our whole idea and says ‘Ok, these are my feedbacks’ and let us have a discussion on this. Then that can change our view to some extent. But not necessarily at that [early development] stage” (H, AI, p.6). This statement reveals that a number of requirements must be met before he considers input: existing network members, specific business expertise, learning about the complete idea, and often in a formal setting.

Overall, the network involved in Advisor’s opportunity development consists mainly of knowledge bearers related to previous work engagements. Mainly existing network ties

have been contacted for feedback and input, network extensions took only to a limited extent place.

6.4 Conclusion Advisor

“In a nutshell, it sort of started with the idea of Europe and India and then the idea gained momentum and became very exciting and then it added more things on to it and then someone burst a couple of bubbles and said hold on a minute that is not the right thing and then it came back to where it was supposed to start of from.” (H, AI, p.14)

Overall, the development of Advisor’s idea goes beyond the development steps seen in the other two case studies. It appears as if not only adaptations to the original idea but rather significant shifts of the overall concept took place. As entrepreneur B admits, “So when you read this through [new BP] and it has changed a lot since we met last time, but this is not necessarily how we have decided to go forward” (B, AII, p.1); the future path for the venture is relatively uncertain. The overall concept has not yet been decided upon, no sophisticated or final business concept has been developed. Nevertheless, the path the venture has taken during the research period indicates that *social interaction and networking* essentially influenced decisions and steps the entrepreneurs have taken. The initial idea ‘discovered’ through classroom discussions has changed radically and right now the future of the venture depends on the entrepreneurial partnership agreeing on a general direction. However, the process of shaping and redefining the initial idea(s) consisted of different steps, business trips, and network members the entrepreneurs talked to. Identifying partners and clients and gathering information about their business behaviour, how they react to the idea, and whether they see a need for the venture were important issues for the entrepreneurs.

Networking and network contributions in Advisor’s case were less obvious as the entrepreneurs relied heavily on existing ties and were reluctant to disclose or admit specifics about meetings and inputs. One can nevertheless conclude that the network involved is extensive and often includes very knowledgeable experts. A number of network ties have only been approached once or twice to receive some specific input, the network is in spite of a large number of existing ties to a certain extent ephemeral.

The entrepreneurs still highlight feedback, support, and motivation during the interviews. With limitations different steps and pertinent network members involved can be identified and their respective roles and influence elaborated on. For *motivation and*

initial feedback, entrepreneur B highlights the importance of family and friends, “I would say the most motivating part is that when we discussed the idea with close friends, classmates, family, at least I found that a lot of people were very impressed with the idea and were willing to put money into the bucket if we needed it” (B, AI, p.8). Through these motivating strong ties, the entrepreneurs were encouraged to develop the opportunity further. Especially, entrepreneur H at several points during the interview refers back to his (entrepreneurial) family ties and the emotional as well as resource support they could provide for the venture.

Feedback and input from knowledgeable persons, weak advisors, is essential for the entrepreneurs. “But the thing is that we were able to differentiate between the positive spin that people we know make and the negative spin that come out of people who you know heard our idea for a minute. (...) We were seeking some of entrepreneur B’s very close associates who he has worked with before and that was crucial” (H, AI, p.9). They contacted entrepreneur B’s former associates, “both to get feedback and to ask questions about things we were uncertain with” (B, AI, p.8), here the active seeking of knowledge and information from specific knowledge bearers comes to the front. “So of course, it makes more sense to talk to people who are more close to maybe pursuing an Indian strategy”(H, AI, p.8). The entrepreneurs are generally speaking aware of their need for specific feedback from knowledge bearers who can contribute with specific feedback to developing the opportunity.

Very unusual in comparison to the two other cases is that the two entrepreneurs display a different attitude towards networking and feedback from people external to the venture. Whereas entrepreneur B resembles the previous entrepreneurs to some extent (seeking, considering, and accepting feedback), H seems to go as far as considering networking a weakness. This is in particular emphasised for new network ties. He only feels secure (or is positive about input) when the network members are known (or are contacted specifically, such as customers). Thus, he tries to rely on existing network ties that are experts or “opinion leaders” (H, AI, p.6). Strikingly, the inner circle of strong ties is missing in Advisor’s case, the entrepreneurs rather emphasise discussions within the partnership. Entrepreneur B though has strong advisors whom he uses to receive specific feedback and input. Generally speaking, the imminent development of Advisor is the most uncertain of all three case studies.

Table 3: Overview of network members and their respective functions for Advisor

Phase	Network ties involved and their impact and influence			
	Strong ties			Weak ties
	Entrepreneurial partnership	Family and friends	Strong advisors	Weak advisors
<i>Initial discovery</i>	<ul style="list-style-type: none"> Initial idea finding and definition (e.g. discussing different business ideas and potential combinations) Define first steps (who to contact, how to pursue it) 	<ul style="list-style-type: none"> Motivation (e.g. H's family; B's family and friends) 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Gathering general feedback about concept and feasibility (e.g. professor) Critical feedback (VC)
<i>Opportunity development</i>	<ul style="list-style-type: none"> Discussions and sparring over the path for venture Disagreement over future direction 	<ul style="list-style-type: none"> Motivation Expanding the network (H's father) 	<ul style="list-style-type: none"> Only strong advisors for entrepreneur B; entrepreneur H discredits the concept Out of existing network ties, two strong advisors are identified Receiving feedback and knowledge Discussing knowledge and information 	<ul style="list-style-type: none"> Providing one-time specific feedback and input (e.g. former business associates) Expanding the network (Indian contacts)

7 General discussion and model construction

The overarching topics of this thesis are entrepreneurial opportunities and how interaction within an entrepreneurial network as well as expanding it and the development process of opportunities influence each other. The case studies reveal that business opportunities as well as entrepreneurial networks are constantly evolving; the same can be said for the model and construct of this thesis. Following a grounded theory approach, the construct developed here evolved in parallel with the case studies and the knowledge of the researchers about entrepreneurial opportunities and networks. Through gaining deeper and more sophisticated knowledge of the topic and enriching the knowledge with case studies and thus qualitative data, the researchers were able to unfold a *network model of entrepreneurial opportunity development*. The following chapter simultaneously analyses and triangulates the three case studies in the light of the previously reviewed literature and strives to build a comprehensive model enlightening the parallel development of and interaction between entrepreneurial opportunities and networks.

Two main findings and establishing a connection between them are the main contributions of this thesis to the entrepreneurship literature. The first finding supports and strengthens the creation/development theory of entrepreneurial opportunities; with the present results it can be contended that entrepreneurial opportunities are objective phenomena that need interpretive (subjective) processes to be discovered and enacted. Secondly, since opportunities are objectively embedded in social structures, networks and network ties play a significant role in the discovery and enactment process of opportunities. They assist with interpretive processes by providing information and knowledge. As a consequence, a relationship and correlation between the development process of an opportunity and the pertinent entrepreneurial network can be earmarked. Interaction between the variables and constituencies involved defines the development process and eventually leads to the outcome of the opportunity development process (entrepreneurial action) and thus to the decision whether to exploit an entrepreneurial opportunity. Hence, eventually a model revealing the chain of actions and interactions between opportunities and networks as well as causes and effects of networking and opportunity development is created.

7.1 The creation and development of opportunities in the discussed cases

The first main finding involves the entrepreneurial opportunity and how it comes into existence. The case studies provide ample evidence for a development component inherent in the entrepreneurial opportunity, evidence that opportunity development resembles a process of emergence and creation (Gartner et al. 1992). Taking Freeprint as an example, the initial opportunity changed significantly over the process before the entrepreneurs agreed upon a final business concept and started to manage and organise the firm instead of developing the opportunity; minor as well as major changes towards the original opportunity were implemented and executed. Recalling that the initial idea was to personally pre-print the paper and to put the pre-printed paper into the printers, the multiplatform concept that is about to be implemented has only the basic idea in common with the original idea. This seems to confirm the *creation view* of entrepreneurial opportunities. In all three cases studies opportunities are not (only) found but made (e.g. Alvarez & Barney 2007; Ardichvili et al. 2003; Sanz-Velasco 2006), through acting and reacting the entrepreneurs steadily enacted the final opportunity construct (Weick 1979). However, the opportunity was ‘out there’ (objective phenomenon) before the entrepreneurs started to enact it, the opportunity existed objectively in social structures. The idea to use

the rear-side of printed-paper as well as the students' need to print and the companies' desire to target students existed long before the Freeprint entrepreneurs 'discovered' them or became alert to them. Yet, the entrepreneurs' ability to interpret and combine different ideas and needs and then to start developing and advancing the initial concept is what eventually led to an entrepreneurial opportunity, the entrepreneurs eventually *create* their opportunity.

A *discovery element* can also be identified in the process or rather as an *activator of the process*. E-Bill's entrepreneurs 'stumbled upon' the idea to digitalise receipts because they shared their experiences when they needed a particular receipt but had difficulties finding it. Similarly, entrepreneur G from Freeprint 'stumbled upon' the rear-side idea and was then able to see the potential for an entrepreneurial opportunity. Advisors' entrepreneurs 'discovered' the fit of their ideas during classroom discussions. Ideas and opportunities are not discovered per se, yet a discovery element is what often starts the opportunity development process, the development process originates in the discovery. A similar distinction has been made by Baron and Ensley (2006) before, opportunities come into existence through market, knowledge, or technological changes (exist objectively) but human minds need to come across them (subjective cognitive process). In addition to Baron and Ensley, it is argued that cognitive processes alone are not sufficient to realise the full value of an opportunity, social interaction within a network is necessary to be finally able to enact an opportunity and to be able to exploit it.

Initially, the entrepreneurs did not know which new path the opportunity would strike – “I guarantee you we could have never have come up with what we are doing now” (K, FII, p.28). They could not see “the end from the beginning” (Alvarez & Barney 2007, p.7), rather during the process and manifold changes they slowly became aware of the overall magnitude of their idea. Thus, the entrepreneurs were only eventually, after they enacted the opportunity, able to fully understand the entrepreneurial opportunity and what it comprises and implies. “Our approach was, this is the easiest thing to do in the whole wide world” (K, FII, p.10), yet ‘the thing’ became more complicated and also more sophisticated during the development process. Investigating the process, all three case studies support a non-linear, iterative, and feedback-driven process (Bhave 1994). Looking closely into Freeprint's development process, the different features can be spotlighted. The decision to utilise existing or own printers came up and was changed repeatedly during the process, revealing iterative characteristics. Additionally, the opportunity ran through ups and downs, towards the end of the trial-period the entrepreneurs were discouraged by the

slow progress and the time involved in pre-printing the paper, the whole concept impended to fall apart. Yet being able to use printers with duplex printing transformed a period of downs fast into a process where several adaptations significantly advanced the opportunity, emphasising a non-linear component inherent in the process (cf. Ardichvili et al. 2003; de Koning & Muzyka 1999). One could also say, the entrepreneurs “massaged the ideas” by engaging in social interaction (cf. Bhawe 1994), thus the “massaging of ideas” occurs through networking, through talking to knowledge bearers, through incorporating information, feedback, and learning. These are the factors that advance and progress an opportunity.

In that process multiple actors were involved, interaction between these different constituencies seemed to decisively shape the development process. Without the help and input from Point A/S’s CEO and their VC coach E-Bill would hardly have reached the step in the opportunity process they reside on at the moment. The information, input, and knowledge provided by their network led the entrepreneurs to iteratively and incrementally change and adapt the opportunity, for instance E-Bill’s decision to exploit existing (VISA) card structures for their concept after an exam at CBS. Following Mintzberg and Waters (1985) as well as Sarasvathy (2001), the entrepreneurs followed an emergent strategy, they effectuated the creation process by engaging in continuous interaction with their network. With their predefined set of means given (Sarasvathy 2001), only through talking, communication, and interaction, the entrepreneurs learned about different alternatives to combine and make use of the needs and means. For instance in Freeprint’s case the entrepreneurs knew early on what means are given to them, students at schools that need to print, companies that need to communicate to students, and the possibility to combine the needs. The opportunities, hence, are talked into existence (Weick et al. 2005).

All three entrepreneurial teams almost continuously highlight feedback and input from external ties that influenced the overall concept and thus the development process. Feedback and adaptations to the idea, thus incorporating the feedback, seems to be the major aspect of the initial entrepreneurial phase and multiple actors, strong and weak ties, are part of this phase and process. Entrepreneurs are in contact with their network to gather input and knowledge that they do not possess, in order to advance and progress the concept. Advisor’s entrepreneurs were continuously in contact with knowledgeable persons from the pharmaceutical industry to assess the feasibility of their idea and gather input and knowledge for potential adaptations. The ability to incorporate learning and be flexible towards developments is decisive for the opportunity development process

(Alvarez & Barney 2007). An opportunity becomes stronger and more sophisticated through the input and knowledge from network members, the entrepreneurs need to be open to feedback and able to utilise external input. E-Bill was able to change the concept from receipt-cards to VISA cards and back to receipt-cards because of their ability to listen to feedback and external input and to consecutively incorporate the learning and act upon it.

Although all entrepreneurial teams underline that their basic idea or opportunity has not changed, a development process can be clearly earmarked for all three ventures. Strikingly, all three entrepreneurial teams are aware of this development component as well. The basic idea, free-printing for students, digitalised receipts, and consulting services for pharmaceutical companies, has not changed for all three ventures, but major and minor adaptations towards the initial concept have been implemented and the opportunity has been brought forward in all three cases. Analysing the underlying development path of the respective opportunities, it can be concluded that all three concepts are more sophisticated, thought-through, and defined than the initial ideas. The role and influence of different network ties significantly contributed to every single opportunity development, the next chapter elaborates further on this.

7.2 Network ties involved in the development process and their role, significance, and influence

As frequently mentioned earlier, people (strong and weak network ties) are expected to be the primary influence factor that shapes the enactment of opportunities and the accompanying development process by providing information and knowledge and by assisting the entrepreneurs as discussions partners (cf. Brüderl & Preisendörfer 1998; Jack & Anderson 2002). As shown earlier, the case studies confirm this assumption. Of additional interest are then potential differences in the role and impact various network ties can have. Therefore firstly a classification of the different ties needs to be established and then consecutively the diverse roles and influences can be elaborated on. Eventually, the connection between development steps and the ties involved can be pointed out. The abundant definitions and operationalisations of the strength of ties concept (see literature review, especially Evald et al. 2006) make it fairly difficult to choose a fitting categorisation for the proposed concept. Krackhardt's (1992) distinction between *philos* (family members and friends) and *strong advisors* (strong ties) as well as *weak advisors* as well as de Koning and Muzyka's (1999) distinction between an *inner circle*, *action set*, the

partnership, and weak ties, appear to fit the case findings. Hence, from the cases studies four different categorisations of ties, based on Krackhardt's (1992) as well as de Koning and Muzkya's (1999) works, can be established. De Koning and Muzyka (1999) already advocated a more fine-grained approach towards different ties involved in the opportunity development process, these requirements should be met in the following. Additionally, this thesis provides empirical prove for the concepts. However, the *action set*, strong relationships with resource providers, proposed by de Koning and Muzyka cannot be identified based on the data from the case studies. This might be due to the timeframe the case studies cover, as the need to recruit resource providers might come up after the phase researched in this thesis.

The case studies reveal a need to distinguish between the different ties and especially the pertinent impact they have on the entrepreneurial opportunity and the development process. The role family members and friends as emotional and motivational support are playing during the process should be scrutinised, since the case findings seem to contradict some of the existing literature. From the case studies it can be derived that *strong ties or philos*, family members and friends, are likely to provide emotional support for the entrepreneurs; especially in the early stage of the opportunity development process, that is during and right after the 'discovery' of the idea, strong ties provide motivation, approval, and emotional support. The actual knowledge of the ties is not important, rather the entrepreneurs acknowledge that they are not seeking specific input from their strong ties, since they are normally not knowledgeable in the area of interest:

"And you always have one or two members of your family you always discuss it with." (C, EI, p.29)

"My family is not running large scale family operations and they are in Iceland and are not at all connected to the pharmaceutical world (...) and I do not seek advice from them on this idea. (...) They are curious and I tell them latest news about the development. And I would say their feedback is more like motivation and support." (B, AII, p.13)

Based on long-term relationships, any strong tie without a business background, without a background in the venture, or particular knowledge about the venture can support the person and venture, but rather not impact the development path of the business opportunity. Philos provide general feedback for the opportunity, such as their opinion on whether they think a service is needed (E-Bill) or whether they regard an idea as feasible (Freeprint).

The role family members and friends play in the entrepreneurial process, nevertheless, appears to be overstated (cf. Greve 1995; Greve & Salaff 2003). All three teams only seldom mention the support they receive from family members or friends. Emotional and motivational support obviously emanates from strong ties, yet the entrepreneurs rather seek input and advice from network ties that possess knowledge in their area of engagement. Since emotional support is mentioned significantly less often than acquiring specific knowledge and information it seems to be of minor importance.

However, a sub-category of the strong ties, the *inner circle of strong advisors* plays a significant role for the development process of an opportunity. These ties are characterised by frequent and intensive contact where specifics for the opportunity and venture are discussed, they assist with interpretive processes. Often these strong advisors, the inner circle, hold advantageous knowledge for the venture allowing them to critically question potential development steps. Taking Freeprint as an example, both entrepreneurs had frequent and continuous contact with a circle of friends that were at the same time very knowledgeable in the area of their venture. Kenneth (Freeprint), Henrik (E-Bill), and a former colleague from the pharmaceutical industry (Advisor) are examples of these strong advisors for all three case studies.

During the initial discovery phase the entrepreneurs identify and recruit – recruit in a broad sense, since they are not paid – a limited number of strong advisors from their circle of strong ties. This can apparently be both a conscious as well as an unconscious process; whereas the inner circle of Freeprint rather coincidentally developed, E-Bill consciously recruited three members for the inner circle. Characteristically for this inner circle is that the members most often are not only strong ties originally but also possess valuable knowledge for the idea and venture. Being a strong advisor implies that the entrepreneurs constantly refer back to them and seek their feedback on potential changes and developments towards the idea. The Freeprint entrepreneurs repeatedly emphasise the role their inner circle plays and that they refer back to their strong advisors to discuss an idea or a development step. The major strength of using strong advisors is adding knowledge, capabilities, and another perspective for receiving and interpreting information. Strong advisors assist the entrepreneurs through discussions, sparring, and scrutinising to finalise or reject development steps. Sparring and discussing development steps and changes within an inner circle of advisors can eventually lead to concrete and tangible adaptations of the concept. Before the E-Bill entrepreneurs decided again to develop their own receipt-card, they contacted their strong advisors to discuss the specifics and get their opinion.

Strong advisors are hence crucial ties to gather final feedback for a development step. Especially the Freeprint entrepreneurs highlight that without the critical feedback from their strong advisors and the recurrent discussions with them, their idea would not be as strong as it is today.

On the other hand, the Advisor team seemed rather hesitant to involve strong advisors. However, their opportunity appeared less developed in comparison to the other two case studies. Literature provides a range of possible explanations for these findings. The entrepreneurs B and H could be “solo entrepreneurs” (Hills et al. 1997) and therefore identify fewer opportunities. Or the opportunity development might be in a very early stage (cf. Greve 1995) and hence the entrepreneurs are still unaware of the complexity of resources required to eventually establish the venture. Furthermore, Advisor’s entrepreneurial ambitions seem not as clear as those of the other two teams. Nevertheless, it is impossible to certainly identify the underlying reasons by means of the data collected. Yet, further research into a possible correlation of involving strong advisors and the robustness of an entrepreneurial opportunity is advocated, in particular as the inner circle offers distinct benefits for the opportunity development.

An advantage of an inner circle of strong advisors is the ability to discuss sensitive data and decisions with them, as the relationship is strongly based on trust. All three entrepreneurial teams emphasise this need for trustworthy advisors one can use to challenge the idea and who at the same time are knowledgeable, “(...) that is the whole discussion part, that is really good to have some good friends, that can you say, you have trust in (...)” (K, FII, p.24). Hence, certain issues, confidential information, and potential adaptations are exclusively discussed within the circle of strong advisors, where on the one hand trust and thus confidentiality are guaranteed and on the other hand specifics can be discussed.

All three case teams talk frequently about the need for specific feedback and input from knowledge bearers, this resembles the idea of weak advisors. Examples for weak advisors are VC coaches, former colleagues, input from (potential) customers; eventually it can be every person within the entrepreneurial network depending on her knowledge and value for the venture. *Weak advisors* provide the most valuable interface for initiating a development step, their input is used to challenge the concept and push the opportunity further. Specific knowledge and resources are important characteristics of every weak advisor, most often they are specific knowledge bearers. Hence, weak advisors are expected to offer access to information, feedback, and/or resources that have an impact on

the opportunity development; entrepreneurs consciously seek feedback and input from weak advisors if they are perceived as knowledgeable in a particular area. Examples in favour are plentiful within the case sections, such as the springboard meetings for Freeprint, the meeting with Point A/S for E-Bill, or the trip to India for Advisor. Weak advisors are often approached for the sole purpose of developing the idea, hence they are often only approached once or on an infrequent basis. Often the entrepreneurs approach a weak advisor having a specific problem, question, or need in mind. E-Bill's entrepreneurs purposefully approached different knowledge bearers within banks and insurance companies to seek their approval of and feedback on the receipt opportunity. Minimising uncertainty and ambiguity is often an additional purpose of contacting a weak advisor.

However, a need for a fourth component, the entrepreneurial partnerships, seems salient and expedient to add (cf. de Koning & Muzyka 1999). As the case studies expose, the entrepreneurial partnership is crucial for the discovery process as well as for finalising development steps. Without the respective partners and without the particular input from the other partner and the discussing and sparring of ideas within the partnership all three case teams would not have been able to implement their ideas. The *entrepreneurial partnership* clearly serves a special purpose in the opportunity development process. All three ideas were at first solely discussed within the partnership or rather discussions within the partnerships initiated the development process. Through talking and communicating with the respective partner, the entrepreneurs developed an initial concept that they regarded as worth pursuing further. Especially the Freeprint entrepreneurs acknowledge the value of their partnership, "I like the idea of having a business partner because I really believe it contributes" (K, FI, p.22). The entrepreneurial partnerships researched in this thesis have either corresponding (Freeprint) or complementary (E-Bill and Advisor) skills, thus they reinforce each other's capacities or complement each other's knowledge and capabilities. Since all final decisions are made within the partnership knowledge and information need to be shared consistently, the partnership consists of the strongest ties of trust.

Network characteristics obviously influence the availability, timing, and quality of information and resource access. Hence, networking and social interaction contribute to the opportunity development, since through different (new) ties new knowledge, information, or resources can potentially be acquired (cf. Greve & Salaff 2003; O'Donnell et al. 2001). Engaging in social interaction thus provides the entrepreneurs with information and knowledge necessary to develop the opportunity. The structure of an entrepreneur's

network can then significantly influence the development path of an opportunity (cf. Arenius & Clercq 2005) and eventually decide on success or failure of the process.

Summarising, it can be concluded that different ties serve different purposes and functions within the network and for the development of an opportunity. It nevertheless seems that all functions (possibly with the exception of the inner circle) are required for developing an opportunity and that entrepreneurs should use their network regardless of the strength of a relationship; different ties serve different functions but all ties are needed (cf. Jenssen & Koenig 2002). As Uzzi (1996) contends a balanced network consisting of a mixture of both strong and weak ties appears to be most beneficial to the opportunity development (cf. Dubini & Aldrich 1991).

7.3 The (parallel) development of the entrepreneurial network

The entrepreneurial network has also been subject to (sometimes radical) change and development in all three case studies. Different degrees of the need for motivation, feedback, and input (information and knowledge) influenced the network developments and expansions; input was sought from different, changing network ties, and as a consequence the networks developed (often) in parallel to the needs of the entrepreneurs. When the opportunity development process started with the discovery of an idea, the network was rather small for all three entrepreneurial teams; it consisted mainly of *strong ties*, such as family members and friends (cf. Evald et al. 2006; Davidsson & Honig 2002). Further, a varying number of business contacts existed as well. The circle of strong ties, with the exemption of the inner circle, did not change significantly during the process, confirming Granovetter's (1973) claim that high maintenance costs impede continuous changes among strong ties.

However, due to the fact that all three teams are Graduates or graduating from a business school, some of their existing strong ties (especially friends from work and business school) possess(-ed) knowledge that could and still can contribute to the opportunity development. An example is Kenneth, a friend the Freeprint entrepreneurs know from business school, but who now works for a venture fund and can thus significantly contribute to the development of their entrepreneurial opportunity. E-Bill also engaged people as strong advisors that they had been in close contact with before. Entrepreneur B receives support from two strong ties he worked with in the pharmaceutical industry. As indicated before, the *inner circle of strong advisors* evolved during the early phase of the development process, relatively soon after the opportunity had been

discovered. It seems as though a circle of strong advisors itself adheres a critical development component. Initially, the entrepreneurs might approach friends from school or work to receive general feedback or spar the idea, yet during the process the entrepreneurs more and more realise the value the strong advisor has for their venture to-be and starts to increasingly integrate her or him in the development process. As an example, Maria and Morton for Freeprint can be mentioned; both were initially hired to develop a business plan for the venture. During the process the (professional) relationship intensified and the entrepreneurs approached them for feedback in other areas as well, they became strong advisors. E-Bill pursued a different approach, they were recommended to hire specific knowledge bearers to their venture and followed this advice. Nevertheless, two out of three people they hired came from their existing strong ties and then became strong advisors. Afterwards the strong advisors were more or less bound to the entrepreneurial team, their involvement occurred recurrently over the whole development process.

Additionally, it can also occur that a weak advisor slowly becomes a friend and thus joins the circle of strong advisors (cf. Johannisson 1997). An example for that is Steffen, an advisor to Freeprint. The entrepreneurs state that he is becoming a friend, thus his status shifts from weak to strong advisor, from a pure business to a business and social tie. The core circle of strong advisors nevertheless stays stable over the process after their ‘recruitment’, as the relationship is based on both mutual trust and the knowledge the strong advisors can provide.

Weak advisors were for all three ventures gradually added and ceased depending on the respective need of the entrepreneurs. Initially, the need for feedback was relatively small, concerning more the general feasibility of the idea. This might be the case because of the, at that point of the process, reasonably limited knowledge of the development path the opportunity would run through. The entrepreneurs were initially not aware of the imminent development process and thus of the need for knowledge, input, and resources (cf. Greve 1995), “I guarantee you we could have never have come up with what we are doing now [just sitting at home thinking]” (Entrepreneur K, Freeprint Interview II, p.28). Initially motivation and social support were more important to keep the entrepreneurs enthusiastic to pursue the opportunity. As the opportunity developed the need for feedback, especially specific feedback and knowledge the entrepreneurs did not possess, increased radically; Advisor was for instance looking for information about offerings and markets covered by competitors and for that purpose they approached specific knowledge bearers from the industry. Often the weak advisors were only involved in social interaction for

one-time specific input, such as E-Bill communicating with different banks and insurance companies. However, overall the network of weak advisors that was contacted grew along the way, from few weak advisors initially, to a sophisticated network of weak advisors towards the end of the process. The finding that weak advisors are often approached for one-time specific input supports the argument of an ephemeral network of weak advisors that frequently and constantly changes and adopts during the process according to the needs of the entrepreneurs and their concept.

At the same time, weak advisors can contribute significantly to the network expansion. A very good example for this is Freeprint's participation in the springboard panel, where they first received feedback and input for their idea, but where they were also able to expand their network; for instance the contact with Steffen, the accountant, was a result of the springboard panel. And this network expansion contributed further to other expansions. For new ties or network members, and thus a network expansion, it can thus be concluded that the tie has either been established intentionally by the entrepreneur or happened coincidentally but was further intensified to support developing the entrepreneurial opportunity with specific knowledge or competencies. Existing network ties, especially weak advisors, take an active role in expanding an entrepreneurs' network.

With increasing need for specific knowledge and feedback, the need for advice from knowledge bearers increases in parallel. This confirms Evald et al. (2006) as well as Greve's (1995) contention that the composition of entrepreneurial networks changes towards a mix of strong and weak ties in the later development stage of the opportunity. Specific knowledge, unlikely to be possessed by strong ties, becomes decisive for further changes and developments (Davidsson & Honig 2002). Thus, the networks develop according to the needs of the entrepreneurs respectively the opportunity; it gets more sophisticated in the sense that the knowledge and resources available to assist the development process expand. Thus, the number of bridges and connections increases with the opportunity (Greve 1995). Entrepreneur K highlights the development component and especially the fact that networks improve, "(...) the network also gets better" (FII, p.28).

The value of networks and the fundamental and essential input that emanates from network members makes networking and expanding the network a decisive task for entrepreneurs (cf. Dubini & Aldrich 1991; Vandekerckhove and Dentchev 2005). The ability of an entrepreneur to enact an opportunity is to a large extent defined by her ability to identify crucial contacts and to expand the network by weak advisors that can decisively influence an opportunity. Without the input from Point A/S, the E-Bill entrepreneurs

would still try to engage in a partnership with a partner (PBS) that currently is neither interested nor economically attractive to the entrepreneurs. An active approach towards networks, thus network engineering, to develop and enact opportunities appears to be decisive for the success of an entrepreneurial endeavour. This confirms Dubini and Aldrich's (1999) claim that effective entrepreneurs are better with networking. It thus seems that not only opportunities but networks as well are enacted by the entrepreneurs.

The findings from the case studies also reveal, contrarily to Davidsson & Honig (2003), that discussion forums like Venture Cup very well assist entrepreneurs during the opportunity development phase. Especially as a platform for networking and establishing contacts with weak advisors, VC served an advantageous purpose for all three ventures, yet to a different extent. The entrepreneurs are required to actively seek networking opportunities such as the ones provided by VC. The same can be said for the springboard panel Freeprint attended, the entrepreneurs acquired important new ties out of the panel. It appears as if through interacting in institutions and panels the entrepreneurs are able to build bridges across structural holes. In this case crucial knowledge for developing the opportunity resembles a structural hole and through engaging in networking the entrepreneurs are able to bridge it (cf. Burt 1992; Evald et al. 2006). Being more active then increases the possibility of 'bridging knowledge'. Freeprint is a good example of a very active approach, which eventually seems to lead to fundamental yet advantageous changes of the opportunity. Advisor on the other hand seems relatively closed towards networking and bridging and the opportunity consequently appears to be developing slower and less effectively.

However, extensions of a network are not always conscious, as the engagement of Freeprint with the Incubator programme Sea (through entrepreneur K's father) reveal. New network ties might as well come into being through the involvement of already existing ties. Existing network ties can hence contribute with new ties (for instance the coincidental network expansion through Karina from NetPartner). Since both weak ties (at VC) as well as strong ties (Karina and NetPartner) served as bridges, it appears that no clear advantage can be earmarked for either involving strong or weak ties in networking, rather taking advantage of all possible ties seems recommendable.

Summing up, de Koning and Muzyka's (1999) assertion that actively influencing an entrepreneurial network to strengthen and improve the opportunity development process seems to hold true. Consciously expanding and monitoring a network supports the entrepreneurs with their entrepreneurial endeavour (Dubini & Aldrich 1991).

7.4 A network model of entrepreneurial opportunity development

“The entrepreneur works with and through people, exercising leadership to enact his or her vision” (de Koning & Muzyka 1999, p.2). This quote highlights the main finding of this thesis, that entrepreneurs engage in a *mutual enactive dialogue* to develop and eventually enact a business opportunity. In the early stages of a venture (to-be) entrepreneurial action corresponds with enacting and developing an opportunity. The mutual enactive dialogue has two main components, the entrepreneurial network as well as the business opportunity and both components shape and inform each other. The development of information and knowledge for the opportunity and the development of an entrepreneurial network are strongly interrelated. On the one hand it appears that the entrepreneurial opportunity slowly unfolds during a development process, it grows in complexity and sophistication. What might at first have been a simplistically appearing and easily executable concept, is further shaped and fine-grained. On the other hand, a network of strong and weak ties contributing differently to the development process also unfolds and grows. Both the opportunity as well as the network develop from being relatively basic at the beginning to complex and sophisticated towards the end of the process. Initially, the opportunity exists as merely an idea, pre-printing the paper or calling Indian pharmaceutical producers and linking them with European companies. The entrepreneurs are only to a limited extent aware of the possibilities, range, and work potentially involved in the entrepreneurial opportunity (cf. especially Freeprint case discussion).

When the entrepreneurs start to realise the potential of an idea and consequently begin to talk about it and to engage in interaction, an entrepreneurial opportunity has been ‘discovered’. This is when the process of “talking into existence”, an enactment process starts (Weick 1979; Weick et al. 2005). Communication and action are crucial variables that start in parallel with the development process. Especially in entrepreneurial partnerships the idea often evolves through discussions among partners. The idea might have already been shaped in the mind of one entrepreneur, however, in order to realise the full potential and value of an idea, communication and interaction need to confirm (disconfirm) the initial hunch. The argument here is that through communication the idea takes off to evolve and to gain meaning as well as momentum. At the same time the entrepreneur begins to enact her future venture environment. Talking and interacting encourages and confirms (or discourages and leads to ceding the idea) the entrepreneur and the idea, and as a consequence defining and shaping of the idea commences.

The entrepreneurs' first actions are mainly concerned with receiving initial feedback about the overall feasibility of the idea as well as to define first steps for developing and building up the opportunity. Motivation and emotional support are valued in this stage, since it confirms the entrepreneurial endeavour. Early on strong ties in the network play a role, both in providing the necessary motivation to pursue the venture creation and in pushing the development of the opportunity. The entrepreneurial partnership is the sole forum for concrete and precise discussions about specifics of the concept and the overall decision-making. Through interaction and communication within the partnership the discovered idea is steadily further defined and shaped, the opportunity development process commences. A limited yet essential set of weak advisors is contacted to test the overall feasibility of the concept, thus to receive more general feedback, such as calling the printer supplier. A minor development component is already inherent in this early phase of the process, for instance through talking to the printer supplier the Freeprint entrepreneurs learned about the possibility to use duplex printing. Thus, while the entrepreneurs interacted with a weak advisor and within the partnership, the entrepreneurs simultaneously acquired new knowledge, initiating the first changes towards the original idea and as a consequence a non-linear development path of the opportunity.

Networking and adding new ties to the network also begins, the entrepreneurs realise the need for knowledge and input from sources external to the partnership. They are simply not able to provide all the necessary input and knowledge themselves. The need to receive external knowledge and feedback forces them to engage in interaction. Hence, after the initial idea has been discovered a process of *organising specialised knowledge* (through knowledge bearers) starts. The entrepreneurs involve in continuous interaction to further advance the opportunity, to evaluate its full potential, to redefine, shape, complement, and adjust the initial concept – in short to develop and enact the opportunity. By this it is meant that the entrepreneurs start to engage in two interrelated activities: developing the opportunity and utilising as well as expanding the network. This mainly occurs through social interaction in networks. Communication and interaction now play decisive roles, emphasising action as a crucial element of opportunity creation. The opportunity is developed through knowledge creation and thus through acting, interpreting the responses, incorporating the learning, and acting again (Choi 1993). Input and new knowledge, however, not always lead to a development step, the entrepreneurs might as well decide (often within an inner circle) not to act on input from their network, such as E-Bill did

when they first heard about E-Box. Hence, action and activity seem to be essential for refining an opportunity, *activities matter* (Carter, et al. 1996).

The need for more specific and idiosyncratic information increases in the later stage of the process. As the entrepreneurs increasingly realise the potential behind their idea yet also the need for input necessary to develop it further, weak advisors become crucial. The entrepreneurs are gradually becoming better at identifying gaps in the concept as well as needs, and at adapting their interaction and networking accordingly. This corresponds with Johannisson's (1997) assertion that "the part of the network entrepreneurs give priority to varies according to need" (p.10). Networks are activated or rather should be activated according to differing needs and different activities. By the same token, receiving feedback and input requires the ability of the entrepreneurs to ask the right question and identify the right knowledge bearer. Thus, the advantage of networks, i.e. specific knowledge inherent in networks, also depends on the ability to identify the right needs and corresponding ties. As the Freeprint entrepreneurs highlight, one needs to know the specific question to get the answer one is looking for. Being able to ask specific questions increases the likelihood of receiving specific input.

Reorientations as well as incorporating feedback and learning (feedback loops) in this stage often occur because of input from weak advisors. The process identified in the case studies is the following: feedback and input from weak advisors make the entrepreneurs rethink their concept as well as consider a potential development step, with this new knowledge the entrepreneurs approach their inner circle of strong advisors to discuss and spar the acquired knowledge and ideas. Finally, incorporating what has been discussed in the inner circle, a decision to adapt or not adapt the concept is made within the entrepreneurial partnership. In case the opportunity developed further, feedback from a weak advisor, for instance a customer or supplier, often drove the iterative development process. Hence, contingencies along the (development) way have been used and exploited to change direction and to shape and redefine the opportunity (Sarasvathy 2001). Once the entrepreneurs feel that all critical ties have been contacted and the knowledge gathered is sufficient to finally take off with the venture, the decision whether or not to exploit an opportunity is made.

Networking and network members become crucial resources (for information, motivation, and financial as well as material resources) to fully understand and develop the business opportunity. Results reveal that even entrepreneurs who claim to develop the ideas themselves still involve their network in the development process (cf. Advisor case

study). This might happen unconsciously, but incorporating feedback as well as making changes due to feedback nevertheless take place. This does in no way minimise the value of the venture, on the contrary, it seems as though networking and incorporating feedback (other new perspectives) renders the opportunity more robust.

The findings from the case studies indicate that the characteristics (structure and quality) of a network and the ability to engage in networking define the opportunity discovery and development capability of an entrepreneur(-ial team); hereby confirming Dubini and Aldrich's (1991) contention that "Entrepreneurship is thus inherently a networking activity" (p.306). While the entrepreneurs are developing their opportunity through gathering information and acquiring resources, they are at the very same time seeking, receiving, and processing input from their network. Eventually, the results of the opportunity development process come from 'talking to someone'. The difference between strong and weak ties is not significant, contrarily, information can come from different ties, weak as well as strong (cf. Jenssen & Koenig 2002). Generally speaking more diversity within a network then equals more opportunities respectively a better development process. Larger networks with less redundancy then increase the probability of obtaining information about a valuable venture opportunity or a valuable adaptation towards an initial concept. However, network ties still need to be willing to contribute to an idea or venture, reluctance from network ties to contribute or engage in interaction can then easily impede the process, an example is the time period Freeprint was forced to wait before they could launch at CBS or the time it takes Advisor or E-Bill to set up a meeting.

Consequently, the initial vague notions for a venture idea iteratively transform through social interaction with (old and new) network ties into a clearly defined business concept, which then requires entrepreneurs to organise and manage a company (Davidsson, et al. 2005). Networks and opportunities emerge in parallel (cf. Johannisson 1997).

8 Limitations and suggestions for future research

Similarly to the relation of ventures to-be, entrepreneurs, and networks, the quality of the information and knowledge created in this thesis depends on the initial input of the researchers and the characteristics of the setting in which the data collection took place. The researchers shaped the information output by identifying the '*right*' questions and the '*right*' contacts for providing this thesis with input. Interpretive processes were necessary to evaluate the information and to ultimately find the '*right*' model.

The nature of the three case studies (data providers) naturally restricts the findings and their generalisability. Since all three entrepreneurial teams were participating in the Venture Cup competition, an incubator-like setting, interaction with a network was assumed. The question then is whether or not the findings can be generalised for non-incubator settings. Furthermore, all entrepreneurs were still students at the point of starting their venture and all were studying at a business school. Additionally, three of the entrepreneurs are educated in innovative processes and market creation, thus their education already prepared them for entrepreneurial endeavours. However, nearly all data providers are first time entrepreneurs. Whether or not the education at business schools tends to emphasise the role of networks in business settings and the findings are generalisable to other educational backgrounds as well as serial entrepreneurs has to be tested by further research. Moreover, from a theoretical perspective the focus on entrepreneurial partnerships leaves the open question whether the same model will hold true for single entrepreneurs. Validating or refuting the model for single entrepreneurs is advocated for future studies.

Interpretive processes leading to the creation of information have occurred as well, both within the data provider (the entrepreneurial partnerships) and within the researching partnership. These are subject to a number of limitations. The researchers were not receiving experiences directly but rather through entrepreneurs recalling them, hence through indirect representations and after the entrepreneurs have already ‘made sense’ (Weick 1979) of their actions. Only the entrepreneurs themselves can judge the interaction that has really taken place. Bounded rationality among the respondents became evident at some points during the interviews, for instance some entrepreneurs had problems recalling crucial meetings or establishing a timeline of events. It seems likely that the entrepreneurs recalled only major events and that the findings of this thesis are therefore limited to major events. Additionally, reluctance to share information may have distorted the information received. At the same time, the research setting focused on ego-centred network research; it relied solely on two members of the network and their perspectives. With more time and resources different perspectives from differing ties should be collected and analysed.

Concerning the *interpretive processes of the researchers*, the methodology has detailed all precautions taken. Nevertheless, personal biases and misunderstandings when interpreting (qualitative) data can never be excluded completely. Solely based on the remarks from the entrepreneurs it is difficult to induce why differences between the entrepreneurs and opportunities occurred. Additional scrutinisation of the underlying

reasons for different development paths and different degrees of networking as well as the consequences is advocated. Only further research will prove or refute whether the *answers* offered on the subject ‘a network model of entrepreneurial opportunity development’ by this thesis are ‘right’. In particular, more research into the awareness of the network’s contribution to the opportunity development seems interesting to the researchers (and also to entrepreneurs!), and more specifically if this awareness can make a difference in developing the opportunity and hence help founding a company.

The development process researched does not address a measurable success factor, all three ventures can still decide to exploit or cease the opportunity and concept. It would now be interesting to see whether or not the ventures take off successfully (which the researchers will follow, but are unable to share with the reader). Additionally, future research should investigate whether awareness of network contribution leads to more successful opportunity development and consequently new venture creation. Future research also needs to further scrutinise the role different actors are playing, breaking the conceptualisation into the partnership, inner circle, and weak advisors further down into the specific actors involved. By this, a more fine-grained picture and consequently more fine-grained recommendations for entrepreneurs can be deduced.

9 Conclusion and implications

Overall, this thesis adopted a more pragmatic view on the changing composition of entrepreneurial networks and the effect on opportunity development. It not only showed the centrality of networks for the development of an entrepreneurial opportunity but also *why* and especially *how* networks are important. Juxtaposing the development process of the opportunity as well as of the network, the network ties, and their roles for the development process resulted in a “network model of entrepreneurial opportunity development”.

It was further confirmed that a mutual enactive dialogue between the entrepreneur and her network influences and shapes the development path of an opportunity. Being able to communicate and act on feedback seems to be one of the entrepreneur’s major capabilities leading to opportunity discovery and development. Awareness of the role networks play and the advantages of networking seem to crucially influence the development path. Appreciation of the process thus helps the idea to develop and get more defined.

The findings from the cases and the consecutive model indicate the necessity for entrepreneurs in the initial idea and opportunity development stage to engage actively in networking and network engineering. Managing a network strategically to enact opportunities is therefore strongly recommended for entrepreneurs. Eventually, action and pursuing an opportunity assertively helps to develop a robust entrepreneurial opportunity. Engaging in (inter-)action is thus essential for the entrepreneurial endeavour.

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11 Appendix

11.1 Appendix I: Interview Guide

I. Lead-in

Thank you!

Describe study.

Implications.

Knowledge of company based on background readings.

Confidentiality.

II. Today's agenda

- (1) Explore background of the entrepreneur or the entrepreneurial team: biography and background, education, prior experiences, what makes them (an) entrepreneur(s), with the overall aim of identifying and clarifying their (or the teams) strengths and weaknesses and thus also potential 'knowledge gaps', their way of doing business as well as their motivation. A first rough picture of their networks can and should already be established here.
- (2) Ask them to reflect on their initial idea and the development process the opportunity passed through to date. Hereby, focusing on milestones and/or major events of change in the development process and the network members involved at that point in time. A time-line should be developed, and distinct people classified according to their importance, function, and impact (the strength of the ties).
- (3) Discuss questions that have not been addressed yet (see questions below) and clarify open points.
- (4) Ask for further useful materials (business plan, PPTs, etc.) that describe and explain how the venture idea developed and who influenced the development.

Potential open-ended questions under (3):

1. What drove you to become an entrepreneur (character traits)?
2. Do you have experience with founding a venture?
3. How do you relate your prior experience and your background to the opportunity you are pursuing now?

4. How did you come up with your venture idea? Who and what resources were involved?
5. Was the idea already clearly defined or did you have some choices/selections to make?
6. What were sources of information in your idea development process? Intuitive or structured search?
7. What kind of 'knowledge gaps' did you identify and what actions did you engage in to close them? Did that lead to major changes? Who was involved in the process?
8. What are major events that caused you to change or adapt the venture idea? Who was involved in the change process? What role did they play? What or who did initiate the change and development process?
9. Who did you discuss your idea with? And in how far did that influence your business concept?
10. How did you present your idea to different stakeholders?
11. How did the interaction take place? How did you communicate?
12. Networks: did you use existing contacts? Or did you build a network with people that were helpful for setting up your venture? Did this occur on purpose or rather coincidentally (conscious or unconscious)? What is the nature of your network: formal or informal? Its size?
13. How did you identify and mobilise the resources necessary for your venture?
14. When do you expect to finalise your business concept? How do you decide that?

11.2 Appendix II: Freeprint Interview I (only in electronic format – see CD-ROM)

11.3 Appendix III: Freeprint Interview II (only in electronic format – see CD-ROM)

11.4 Appendix IV: E-Bill Interview I (only in electronic format – see CD-ROM)

11.5 Appendix V: E-Bill Interview II (only in electronic format – see CD-ROM)

11.6 Appendix VI: Advisor Interview I (only in electronic format – see CD-ROM)

11.7 Appendix VII: Advisor Interview II (only in electronic format – see CD-ROM)