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Master's Thesis

Fitting networking behaviour to venture maturity:

A contingency perspective on entrepreneurs' network agency

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Abstract

This thesis builds on the existing work on entrepreneurial network agency (Gulati & Srivastava, 2014; Vissa, 2012) and enhances the previous studies by providing evidence for a contingency argument, proposing that entrepreneurial networking behavior should be fitted to the venture's maturity level to generate the most new business contacts. Specifically, it is proposed that the effect of the level of entrepreneurs' reliance on referrals, i.e. the extent to which an entrepreneur relies on introductions from existing contacts to generate new ones, on the creation of new business contacts is moderated by the maturity of the focal venture. Putting forward a fit argument, it is asserted that founders of immature businesses will be more successful in the creation of new business contacts by relying less on referrals than their counterparts in mature ventures, who are proposed to benefit from such a reliance. To test the hypotheses of this research, a quantitative study including 84 entrepreneurs was conducted. To enhance the discussion of this quantitative study, four qualitative interviews were conducted with entrepreneurs, generating insights into the behavioral and motivational reasons for entrepreneurial networking behavior. The results of the quantitative study provide evidence for the proposed moderation effect. However, the findings of this research also reveal that entrepreneurs do not consistently fit their networking behavior to the maturity of their venture. While first indications about the reasons of this partly miss-fitted behavior are provided in this thesis, future research is needed to further investigate the underlying reasons for exhibited entrepreneurial agency.

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1 Introduction

1.1 Background

Social networks have been studied extensively across various fields, such as social sciences, physics, epidemiology and biology (Borgatti & Halgin, 2011). In the management literature, social network theory has been employed to address topics such as, among others, employee performance (Sparrowe, Liden, Wayne, & Kraimer, 2001), innovation (Obstfeld, 2005), creativity and sources of new information (Burt, 2004), employee turnover (Krackhardt & Porter, 1985, 1986), and promotion (Burt, 1995). Increasingly, the literature is also employing network theory to investigate various aspects of entrepreneurship (Hoang & Antoncic, 2003). Specifically, entrepreneurial networks have been studied in relation to access to capital (Light, 1984; Shane & Cable, 2002; Zimmer & Aldrich, 1987), acquisition of market information (Freeman, 1999), recognition of business opportunities (Birley, 1985; Singh, Hills, Lumpkin, & Hybels, 1999) and their reputational and signaling capacity (Higgins & Gulati, 2003; Stuart, Hoang, & Hybels, 1999). Further, research has dealt with the importance of trust in governing social networks in business contexts (Larson, 1992; Lorenzoni & Lipparini, 1999) and the effect of influence and power in supporting network governance (Krackhardt, 1990). Finally, the structures of entrepreneurial networks have been studied to understand entrepreneurs' access to information (Brajkovich, 1994; Hansen, 1995).

Theoretical models in the entrepreneurship literature have historically treated networks in one of two ways, either as an independent variable or as a dependent variable (Hoang & Antoncic, 2003). Correspondingly, research approaches have been classified as either focusing on networks as a critical factor influencing entrepreneurial processes and outcomes (e.g. Brüderl & Preisendörfer, 1998;

McEvily & Zaheer, 1999; Shane & Venkataraman, 2007; Stearns, 1996; Zhao & Aram, 1995) or focusing on networks as an outcome of entrepreneurial activity (e.g. Larson & Starr, 1993; Starr & Macmillan, 1990). While the former perspective, taking networks as an independent variable, usually treats the structure of the ego's network or the position of the ego in the network as a static variable, the latter perspective investigates how various factors influence networks and the egos' positions in them. In doing so, a dynamic understanding of networks is adopted in which networks are not treated as static constructs, but as dynamically evolving structures. This investigation of network dynamics is especially interesting for the entrepreneurship literature and, more importantly so, to entrepreneurs themselves, as an understanding of how networks can be shaped and altered facilitates the creation of networks that are beneficial to their desired business outcomes. In a study exploring entrepreneurs' agency, i.e. the activities of entrepreneurs to shape their network, Vissa (2012) investigates which networking behaviors lead to the generation of more business contacts for entrepreneurs. In doing so, his study attempts to integrate two theoretical lenses by first investigating how entrepreneurs' actions shape their network and then exploring how these networks lead to the generation of new business relationships (Vissa, 2012).

1.2 Problem

The entrepreneurship literature has made great strides in explaining many aspects of entrepreneurial processes and outcomes by employing theories and constructs of social networks. The aspect of entrepreneur agency in network creation and development is particularly interesting, as insights in this field are directly beneficial to practitioners looking to develop a network that is conducive to the attainment of their desired business outcomes. Existing work in the field of entrepreneurial agency in networks (e.g. Vissa, 2011, 2012) has made first progress in linking entrepreneurial networking behavior to the development of the entrepreneur's network and linking this to business outcomes, specifically the generation of new business contacts (Vissa, 2012). While this work provides powerful implications for practitioners, it neglects the network dynamics at play throughout the life of a new venture, such as the development from a socially embedded founder network that is primarily consisting of family, friends and former colleagues, to a professional and task-oriented network (e.g. Larson & Starr, 1993). The omission of these network dynamics limits the power of the existing literature on network agency in entrepreneurship (Gulati & Srivastava, 2014; Vissa & Bhagavatula, 2012; Vissa, 2012). Adding a network dynamic perspective to the understanding of network agency will provide a contingency view on agency in entrepreneurial networks that helps to further develop the understanding of how entrepreneurs can best shape their networks to fit their business needs.

In order to arrive at such a contingency view, this study investigates the effect of an entrepreneur's reliance on referrals, i.e. the extent to which an entrepreneur relies on introductions from existing contacts to connect to new ones, in seeking new business contacts at various stages in the venture life cycle (e.g. Blank, 2007; Larson & Starr, 1993; Marmer et al., 2011). The aim of this research is to explore, whether different levels of reliance on referrals, brought about by different networking behaviors (Vissa, 2012), are more or less effective at different points in the life cycle of a new venture.

1.3 Positioning

This study disagrees with the notion of a one-size-fits-all approach to networking by entrepreneurs that is adopted in earlier studies (Vissa, 2012) and, instead, offers a contingency view that takes into account the different developmental states that a new venture traverses as it matures (Blank, 2007; Marmer et al., 2011). Further, this thesis acknowledges the need for an integration of the two perspectives on networks, treating them either as dependent or independent variables, that was also identified by Hoang and Antoncic (2003). One long-standing discussion in network theory is that of tie strength. Tie strength has been described as the strength of a relationship that links two people (nodes). Several arguments have been made regarding tie strength. Most notably, the proposition of the strength of weak ties (Granovetter, 1973) argues that weak ties provide more novel information to an ego, because in a strong tie relationship, an actor is more likely to have come in contact with that piece of information before. However, tie strength and existence of weak ties are generally treated as static in this literature. This thesis challenges this assumption and attempts to shed light on the ego-level antecedents of weak-tie creation, showing how such ties are best created at different stages of a venture's development.

1.4 Research Question

This work introduces a contingency perspective to the work on entrepreneur agency in shaping founders' networks. The question that this thesis is trying to answer is, whether the choice of networking action, i.e. investing time in contacting new people outside of one's existing network versus investing that time in fostering one's existing relationships, resulting in a certain level of reliance on referrals (Vissa, 2012), should be contingent on the the stage of the venture in order to yield the most effective and efficient results, i.e. the highest possible number of new business contacts. These networking modes have been linked to the extent that an entrepreneur relies on referrals from existing contacts to generate new ones, i.e. using existing contacts to be introduced to people the entrepreneur would like to connect to. This thesis investigates whether there is an increase in the most effective level of such a reliance on referrals (Vissa, 2012) as a venture matures, meaning that while it might not be most effective for entrepreneurs to rely heavily on referrals to generate new business contacts at the outset of their venture, the effectiveness of such a reliance might increase as the venture becomes more mature and sophisticated.

1.5 Methods

Building on the work of Vissa (2012), this research measures the effectiveness for generating new business contacts of different levels of reliance on referrals. In order to do so, this study measures the number of new business contacts generated in a given year and investigates the level of reliance on referrals at the beginning of that year, i.e. one year prior to the point of measurement. Further, the venture's maturity one year prior to the point of investigation is recorded as the venture's stage in the venture life cycle. This approach was chosen because different ventures can progress at different speeds. Age, measured in months or years, might, therefore, not be an accurate indicator of maturity. The chosen research methodology is used to overcome the acknowledged difficulties of network development research and the corresponding need to take measurements at two points in time (Hoang & Antoncic, 2003). This allows for a larger and more internationally diverse sample, as less involvement of participating entrepreneurs is needed.

Regarding the research methodology employed, this thesis uses a two-fold approach consisting of a quantitative study using a questionnaire that is administered electronically to a sample of entrepreneurs. This quantitative study is enhanced by personal interviews with select entrepreneurs. These interviews are used to validate the quantitative findings and enrich the discussion of the study results by gaining additional insights into the network dynamics at play throughout the development of a venture and the behavioral and motivational antecedents of these dynamics that cannot easily be captured by a quantitative study.

1.6 Contribution

With its contingency approach to entrepreneurial agency in the creation and shaping of networks, this work contributes to the understanding of network dynamics in the realm of entrepreneurship. First, this study validates the findings of Vissa (2012) by validating parts of his research, i.e. the effect of an entrepreneur's level of reliance on referrals on the number of new business contacts generated, using a different research design that allows for a wider and less homogeneous sample. Second, this study advances the understanding of entrepreneurial network agency through the introduction of a fit argument regarding optimal networking behavior for different venture maturity levels. Further, this study highlights potential behavioral and motivational reasons for the networking behavior currently exhibited by entrepreneurs, thus providing a starting point for the integration of such aspects in the theorizing on entrepreneurial network agency.

The findings can highlight best practices in developing entrepreneurial networks at different stages of a business's development. From a practitioner's perspective, the contributions of this paper lead to very actionable insights regarding the effects of different networking actions throughout the course of a venture's life. Following, entrepreneurs can benefit from this understanding by adjusting their networking behavior to the stage of their business in the venture life cycle and their desired business outcomes.

1.7 Outline

In order to answer the research question of this study, the thesis first reviews relevant existing literature on network theory in general and its applications in the field of entrepreneurship to provide a foundation for the ensuing theoretical discussion. Second, the theory of this thesis is developed, providing a theoretical argumentation for the existence of a fit argument that proposes a contingency perspective for entrepreneurs' reliance on referrals depending on their venture's maturity level. Third, the methodology of this study is discussed at length, giving a detailed account of the different variables tested and research methods employed. Fourth, the results of the quantitative research are reviewed and the insights from the qualitative interviews elaborated on. Fifth, these results are discussed and the implications for theory examined. Finally, the thesis concludes with an analysis of the study's limitations and suggestions for further research as well as a discussion of the practical implications of this study's findings.

2 Literature Review

2.1 Networks and Network Theory

To allow for a well-informed discussion on networks in entrepreneurial settings, a general understanding of networks and network theory is paramount. The following section provides an overview of the most important concepts and elaborates on fundamental network theories.

Networks. Networks have been described as an accumulation of actors or "nodes" that are connected by ties of a specific kind, such as friendship, kinship and the like (Borgatti & Halgin, 2011). These ties connect actors (nodes) directly or indirectly through mutual nodes or across several nodes. Generally, two types of ties have been identified in the literature. Namely, state-type ties and event-type ties (Borgatti & Halgin, 2011). State-type ties represent ties that describe relationships (friendship, kinship, employment etc.) that are potentially open-ended (but not necessarily so). In contrast, event-type ties describe discrete events (e.g. telephone calls, emails, meetings). Both kinds of ties can be thought of as facilitating some kind of flow (information, resources etc.) between nodes (Borgatti & Halgin, 2011). These flows are the exchanges that emerge in a network.

Further, the structure of ties and the position of nodes in this structure are important characteristics of a network. These characteristics are the basis for network properties such as, among others, small-worldness (Missen, Boughanem, & Gaume, 2008), closeness, betweenness (Karamon, Matsuo, Yamamoto, & Ishizuka, 2007) or centrality (Freeman, 1978). Network structures are generally unbounded (Laumann, Marsden, & Prensky, 1983) and boundaries are set based on the research question at hand (Borgatti & Halgin, 2011). For example, when investigating the network flows inside an organization, nodes inside the focal organization will be part of the network in question and nodes outside this organization will be excluded from investigation. Further elaborating on this point, networks can even consist of different components that do not necessarily need to be connected. Hence, it can be the case that, in a disconnected network, two actors cannot be linked to one another by any path while still being part of the same network.

Network Theory. In general, two dominant types of models of network theory have been established in the literature, namely flow models and bond models (Borgatti & Halgin, 2011). While flow models explain the flows of information or resources within networks, bond models attend to the relationships of nodes within a network and the resulting implications. In the following, these two types of network models and the most prominent theories of each are described in turn.

The most noteworthy flow models in network theory are the strength of weak ties theory (Granovetter, 1973) and the structural holes theory (Burt, 1995, 2004). Granovetter's (1973) theory is based on two fundamental premises. The first is the idea that two actors (nodes) that are strongly tied together are likely to have similar and overlapping social circles. In his theory, a strong tie is defined by a high level of time in the relationship, emotional intensity, intimacy and reciprocal services rendered between the two parties (Granovetter, 1973). The premise that strongly tied actors are likely to have overlapping social circles is supported by the notion of homophily (McPherson, Smith-Lovin, & Cook, 2001), stating that people are generally drawn to people that are like themselves. If then, actor A and B are strongly tied because they are relatively similar, it is thought to be very likely that their other contacts (e.g. C, D etc.) are very likely to be very similar or even the exact same people. This kind of transitivity has also been described as g-transitivity (Freeman, 1978). The second idea underlying Granovetter's theory is that novel ideas are more likely to come from diversity rather than from homogeneity. Following, he argues that bridging ties, i.e. those ties that connect different components of a network, are more likely to convey novel information as this information is less likely to have been circulated among the ego's close network. Taken together, these two premises postulate the strength of weak ties theory, asserting that novel information is more likely to stem from weak ties than from strong ties. The reason for this is that strong ties are argued to be unable to be bridging ties due to the high probability of mutual third-party connections. Following, weak ties are theorized to be the only ties that can potentially function as bridging ties that can provide novel information to the ego (Borgatti & Halgin, 2011).

A second, very influential theory in flow model theorizing in network theory is the structural holes theory (Burt, 1995). This theory, while in essence being very similar to Granovetter's, postulates that networks exhibiting structural holes, i.e. that consist of several loosely connected components, are better promoting the exchange of novel information and good ideas than those not displaying such structural holes (Burt, 1995, 2004). The argument underlying this premise is very similar to that offered by the strength of weak ties theory. Networks characterized by many structural holes are superior in affording novel information to the ego, because the information received, at a given number of ties, is expected to be less redundant compared to ego networks with fewer structural holes (Burt, 1995). This correlates with the notion of weak, bridging ties, as structural holes come into existence through such bridging ties. Hence, a network with many structural holes will also exhibit more weak, bridging ties.

While research generally supports these theories (Granovetter, 1983), some studies also highlight the importance of strong ties, especially in situations of change and insecurity (Granovetter, 1983). Further, it was argued that the existence of strong ties helps organizations to overcome crises (Krackhardt & Stern, 1988). While not negating the proposition that novel ideas can stem from weak ties, the "strength of strong ties" (Krackhardt, 1992) has been proposed, introducing the concept of a "philos" tie as a theoretical construct for friendship ties that is built on the three measures of time in relationship, affection and interaction (Krackhardt, 1992). Such philos ties are postulated to instill trust in situations of uncertainty and substantial change where the ego is likely to be in a position of insecurity. Hence, this research points out the importance of strong ties, not as sources of novel information, but as sources of trust and support.

While flow models, the most developed theory within network theory, describe the flow of information or resources within networks and are predominantly concerned with explaining such flows based on network structures and node positioning, bond models are used to investigate the relationships existing between nodes and the effects of these relationships.

One of the most researched applications of bond models in network theory is the study of power in networks. In experimental studies, it was found that the ability of actors to negotiate superior deals is influenced by their structural position in a network (Cook & Emerson, 1978). Specifically, it was found that actors that are located in the network structure in a way that provides them with many alternative negotiation partners are at an advantage vis-à-vis those actors that can only negotiate with a single partner. Further, it has been found that even when connected to multiple potential negotiation partners, the strength of these partners influences the ego's negotiation power. It was found that being connected to weak negotiation parties increases the ego's negotiation power, while being connected to high-powered parties decreases the ego's negotiation power (Bonacich, 1987; Markovsky, Willer, & Patton, 1988; Marsden, 1983). Hence, it should be noted that the structure of the network that actors are positioned in and the ties they are connected to create their position of power or lack thereof.

Network Dynamics. While most existing research treats networks as static constructs that impact a variety of outcome variables, there also exists research that is concerned with the dynamics of networks and the fundamentals of change in networks. Such change has been proposed to occur either at the whole-network level, concerning the structure of the network as a whole, or at the ego-network level, i.e. concerning the ties and nodes an ego is connected to (Zaheer, Gözübüyük, & Milanov, 2010). While it has been argued that these two levels of change are interdependent (Ahuja, Soda, & Zaheer, 2012), the following section is limited to a discussion of ego-network level changes as whole-network developments are less relevant for this study, which focuses on the role of entrepreneur agency in network dynamics. Hence, ego-level network dynamics can be considered to be most important in the scope of this thesis.

Networks have been found to change in a number of ways. Existing ties can be weakened or strengthened (Mariotti & Delbridge, 2012) or different ties can influence one another (Shipilov & Li, 2012). On an ego-network level, such change manifests itself in changes in the centrality of the focal node (ego) and in changes in the structure around the focal node, for example by opening or closing structural holes (Ahuja et al., 2012). These changes have been explained on a microfoundational level and were termed agency, opportunity, inertia and exogenous and random factors (Ahuja et al., 2012).

Agency has been identified as one of the key factors in the creation and dynamic development of networks (Ahuja et al., 2012). The notion of deliberate, strategic agency behavior (Emirbayer & Mische, 1998) is considered central to changes in networks as actors choose which ties to create, strengthen, weaken or dissolve. Such actions are found to give actors the ability to shape their networks in a way that benefits them, e.g. through the creation of structural holes (Burt, 1995).

Opportunity relates to the importance of convenience in network development (Ahuja et al., 2012). It has been shown that network dynamics are substantially influenced by factors such as referrals, i.e. direct contacts of an actor referring new contacts to the focal actor (Gulati & Gargiulo, 1999; Gulati, 1995), and both psychological and physical proximity (Rivera, Soderstrom, & Uzzi, 2010). What this implies is that network developments are shaped by the creation of and change in relationships that a focal actor is most likely to be pursuing. These have been argued to be those relationships that the focal actor will be naturally concerned with due to his personality and his existing network (Ahuja et al., 2012).

Inertia, the third microfoundation of network change identified by Ahuja et al. (2012), describes the fact that networks and, correspondingly, network dynamics are path-dependent. This means that change in networks can be expected to be influenced by factors of persistence in the existing network, such as rules, regulations and norms. These factors of persistence are suggested to be of similar importance than those of change (Kim, Hongseok, & Swaminathan, 2006). It is further argued that network development frameworks are likely to develop within networks that subsequently impact further network development. In such cases, it is proposed that network development might not predominantly be based on logical thinking and cost-benefit analyses, but on habits and reciprocity (Ahuja et al., 2012).

Random and exogenous factors represent influencers on network developments that lie outside of the control of an ego or that come from outside of the existing network (Jackson & Rogers, 2007). These factors have little to do with the existing structure and other characteristics of the network and, therefore, provide limited insights for a conceptual understanding of network dynamics. However, events such as two firms being appointed to an institutional board and forming ties at random (Bell & Zaheer, 2007) offer explanations for the development of networks outside of a microfoundational understanding.

To provide necessary background information and to facilitate the understanding of the theory presented in this study, the preceding section provides a review of selected literature on the foundations of networks and network theory. Moreover, insights into the existing literature on network dynamics are provided to establish an understanding of the drivers of network change. Based on this background understanding, the network theoretical applications in entrepreneurship research are reviewed next.

2.2 Effects of Networks in Entrepreneurship

Due to the important role of networks in the inception of new ventures, network theory has increasingly been applied to the study of entrepreneurship (e.g. Hite & Hesterly, 2001; Hoang & Antoncic, 2003; Larson & Starr, 1993; Slotte-Kock & Coviello, 2010; Vissa, 2012). To provide an overview of the existing knowledge in this field and to provide the basis for the ensuing theoretical discussion, the following section reviews selected literature regarding the development of entrepreneurial ventures and the effects of networks on entrepreneurial undertakings.

New Venture Development. Numerous models describing the maturation of new ventures exist in the literature (e.g. Blank, 2007; Kazanjian & Drazin, 1990; Marmer et al., 2011). However, while these models are relatively similar in their conception, no single agreed upon model exists.

One very influential model that has gained widespread acceptance in academia but also with practitioners (e.g. Cooper & Vlaskovitz, 2010; Mueller & Thoring, 2012) takes a customer centric perspective on start-up development (Blank, 2007). In a process labeled "the four steps to the epiphany", Blank (2007) describes the evolution of start-ups by describing the nature of a firm's customer base and suggests this as a superior alternative to models that are based on product development. In the first stage of his four step process, "customer discovery", firms are proposed to identify high-value customer problems, solving which is very relevant to potential customers. In the second phase, "customer validation", new ventures are validating the customer groups that were identified in the customer discovery phase. Specifically, firms are verifying whether the problem their offering is solving is important enough for customers to repeatedly spend money on. Further, in this phase it is suggested that firms evaluate whether these paying customers will constitute a viable business model for the company or whether an adjustment to the offering or business strategy is necessary. In the "customer creation" phase, the third phase of the proposed process, firms are suggested to turn identified and validated potential customers into paying clients. This is typically accompanied by heavy marketing spend. However, the specific activities in this stage are suggested to differ depending on the market situation that the new company is operating in, i.e. whether the firm is operating in a market with a strong incumbent or whether the firm is entering a new market and has to educate potential customers about the offering. In the final stage of Blank's (2007) model, the "company building" stage, companies are postulated to further develop by establishing more refined management structures and by scaling up operations to keep up with increasing demand.

A different model that builds on Blank’s (2007) four stage model is proposed by Marmer et al. (2011). However, as opposed to the model proposed by Blank (2007), the “Marmer Stages” (Marmer et al., 2011) take a product centric perspective. The first of the Marmer Stages, called “discovery”, is characterized by startups validating whether the problems they are trying to solve are meaningful to potential customers. Main activities in this stage include the establishment of the founding team, the creation of a minimally viable product and raising funding from family and friends. This stage is followed by the “validation” phase. Similar to the validation phase proposed by Blank (2007), this stage is characterized by validating customers’ interest and intention to buy. Core activities include refinement of core features, hiring of key personnel and acquisition of seed funding. In the third stage, “efficiency”, it is proposed that firms improve the efficiency of their customer acquisition process and refine their business model as necessary. In this stage, companies improve the customer experience and establish sales channels that allow for scaling. In the final Marmer Stage, “scale”, firms scale up their business, massively increase customer acquisition and conduct larger funding rounds.

Social Networks in Entrepreneurship. An extensive body of research has described the role of networks in influencing entrepreneurial business outcomes. For example, case research by Elfring and Hulsink (2003) shows that different types of ties are important influencers of success in different areas of entrepreneurship. Specifically, it was found that strong ties are especially useful for securing resources, both when engaging in incremental and radical innovation. Further, it was proposed that strong ties are especially important for ventures pursuing radical innovation when identifying and evaluating opportunities as they provide a source of trusted and honest feedback (Elfring & Hulsink, 2003). For legitimization, it was found that weak and less embedded ties are more facilitating for ventures pursuing radical innovations.

These findings are supported by other research, highlighting the importance of both strong and weak ties as both were found useful to entrepreneurs in different areas of establishing a venture (Jack, Dodd, & Anderson, 2004). These insights are expanded by Jack (2005), highlighting the existence of dormant ties, i.e. strong ties that can lie dormant and do not necessarily require much involvement by the entrepreneur, but that can quickly be reactivated when they become potentially useful (Jack, 2005).

In a study of wineries in Washington state, Butler and Hansen (1991) confirmed the importance of existing social networks for the success of a start-up. Specifically, it was found that the founders' social networks had a significant impact on the identification of entrepreneurial opportunities (Butler & Hansen, 1991). Further, it was found that especially the establishment of inter-organizational strategic networks (Butler & Hansen, 1991) was related with sustaining competitive advantage (Barney, 1991) in the last stage of business development, labeled "ongoing business" by Butler and Hansen (1991).

Shifting to a different analytical perspective, different studies (e.g. Lechner, Dowling, & Welpe, 2006; Lechner & Dowling, 2003) have investigated how networks can support business success at different stages of the venture development process. Specifically, it was found that social and reputational networks decrease in importance as a venture matures. Co-operative networks, on the other hand, were found to appreciate in importance throughout the life of a venture (Lechner & Dowling, 2003). These findings are expanded on by Lechner et al. (2006), who failed to confirm a positive impact of network size on firm success, but emphasized the importance of a "relational mix" (Lechner et al., 2006), i.e. a mix of different networks, for the success of a firm, measured as time-to-break-even. Moreover, they confirm the importance of reputational networks at the beginning of the venture development process, while highlighting a detrimental effect of cooperative technology, i.e. partnering with other firms for shared use of technology, in that phase (Lechner et al., 2006). This detrimental effect is explained with signaling an inability to possess the needed capabilities inside the company, limiting trust in the firm by business partners (Lechner et al., 2006). Marketing networks and cooperative networks with direct competitors were found to be beneficial for business success in later stages of the venture development process (Lechner et al., 2006).

Network Dynamics in Entrepreneurship. The network dynamics in entrepreneurial networks have been subject to a number of studies and conceptual papers that have investigated the development of firm and founder networks as new ventures mature. In a seminal study in this field, Larson and Starr (1993) describe the network development process in a newly founded enterprise as a three-phase process. When starting the venture, it is postulated that entrepreneurs are mainly concerned with identifying existing ties that could potentially provide resources (tangible and intangible) to the venture. This proposition is supported by research highlighting the importance of existing ties such as family and friends in the process of starting a business (e.g. Aldrich, Rosen, & Woodward, 1987; Birley, 1985; Zimmer & Aldrich, 1987). Next to existing contacts, entrepreneurs also seek out new contacts that could be of value to their venture (Larson & Starr, 1993). In the second phase of the proposed process, it is argued that relationships become more multidimensional with those being established for business reasons gaining an affectionate component, i.e. business partners who work repeatedly together eventually becoming friends. Moreover, it is proposed that existing social relationships are also more and more utilized for business reasons. Overall, this stage is characterized by increased trust between the entrepreneurs and their contacts (Larson & Starr, 1993). With increased trust, the existing relationships become more established and the information exchanged becomes more substantial in the third phase of the process proposed by Larson and Starr (1993). The interactions become more routine and the relationships eventually supersede the personal level that was paramount in the beginning and evolve into an inter-organizational nature (Larson & Starr, 1993).

In another conceptual study, Hite and Hesterly (2001) propose a network development in newly founded ventures that is quite similar to the development process described by Larson and Starr (1993). Specifically, it is argued that at the outset, firms' networks are very path-dependent and socially embedded, meaning that they are dependent on the social network and identity of the founder, who is likely to utilize personal ties (Hite & Hesterly, 2001). At this point, founders' networks are proposed to be very cohesive (Coleman, 1988) and dense and founders are expected to exploit the social capital they have accumulated among their existing connections. As the firm progresses to an early growth stage, however, it is argued that the firm's network changes significantly. It is suggested that founders' connections become more strategic in nature, being planned based on a cost-benefit assessment (Hite & Hesterly, 2001). This shift is argued to change the nature of the network substantially from being very cohesive and dense to being a mix of embedded and arm's length relationships. Such less cohesive networks, being more intentional compared to the socially embedded network at the firm's beginning, are hypothesized to exhibit more structural holes (Burt, 1995) and to be better suited for exploiting these (Hite & Hesterly, 2001). This change is expected to establish a network that is better suited to conduce firm performance and can be better aligned to a firm's changing needs throughout a venture's life (Hite & Hesterly, 2001). This proposed network development suggests, similar to Larson and Starr (1993), that firms need different types of networks at different points in their life cycle.

One noteworthy difference between the conceptualizations of Hite and Hesterly (2001) and Larson and Starr (1993) is the development in network density (Slotte-Kock & Coviello, 2010). While Larson and Starr (1993) propose that networks become increasingly dense as the venture matures, Hite and Hesterly (2001) argue for the contrary, suggesting that networks will exhibit less density and more structural holes as the business develops.

Several empirical studies (e.g. Greve & Salaff, 2003; Hite, 2005) mostly support the theories of Hite and Hesterly (2001) and Larson and Starr (1993). In an international comparison of new ventures, Greve and Salaff (2003) find that networks are not static across different stages of the entrepreneurial process, i.e. motivation, planning and establishment (Greve & Salaff, 2003), but dynamic in that they start out with being very embedded and small and then grow in the second phase before focusing and shrinking in the last phase (Greve & Salaff, 2003). Further, this study supported the pivotal role of family and friends in the establishment of a new company. Another study by Hite (2005) supports the findings of Larson and Starr (1993) by highlighting the change in ties, i.e. the change in the nature of existing relationships. This corresponds with the emerging multiplexity of relationships as social relationships acquire a professional component and vice-versa.

Use of Referrals in Network Development. A referral has been described as the process in which the focal actor (ego) is referred by a personal contact, i.e. a referee, to a desired third party contact, i.e. the target (Vissa, 2012). Using a referral for establishing a tie between the target and the ego provides the ego with better information about the approached target and facilitates the establishment of trust between the two parties (e.g. Gulati & Gargiulo, 1999; Shane & Cable, 2002).

Especially in entrepreneurial settings, referrals can have substantial benefits for entrepreneurs seeking out new business relationships. They have been found to mitigate the liability of newness (Freeman, Carroll, Glenn, & Hannan, 1983) through helping to gain the attention of targets and through stabilizing the dyadic relationship of focal actor and target (Vissa, 2012). Referrals have been shown to help legitimize new ventures and their founders and, hence, increase the attention paid by targets to approaches by focal entrepreneurs (Nohria, Nitin, Eccles, 1994). Moreover, referrals have reputational effects that promote good behavior as they facilitate monitoring by the referee (Burt & Knez, 1995).

While using referrals brings with it a number of benefits for entrepreneurs seeking to expand their network, this practice also has various costs associated with it. Three major costs have been identified, namely increased obligations of the ego to the referee, constraint in the relationship of ego and target and a limited search for new contacts (Vissa, 2012). It has been argued that the focal entrepreneur will be subjected to increased obligations to the referee based on the reciprocal nature of dyadic relationships (Emerson, 1976). Hence, entrepreneurs will owe a favor to the referee or will experience a “credit slip” (Coleman, 1994), if the referral was the repayment of an earlier favor by the referee (Vissa, 2012). Further, it was proposed that using a referral limits the set of actions available to both parties in the dyadic relationship between ego and target as this relationship, through the referral, becomes a triadic relationship (Vissa, 2012). The introduction of the referee to the ego-target relationship introduces a governing mechanism that is suggested to function to regulate the behaviors of the ego and the target in ways that, for instance, can reduce the bargaining power of both parties. For example, the reputational effects introduced through the referee make it excessively costly for both ego and target to exploit the other party in negotiations (Vissa, 2012). Finally, relying on referrals in the search for new contacts limits the focal entrepreneur to the networks of his referees, potentially excluding opportunities that lie outside of the referees’ networks.

Agency in Entrepreneurial Network Development. The entrepreneurship literature has also identified agency as a driving force of network development, leading to research investigating the founders’ role in shaping their networks in such a way that it best benefits the goals of their company at a given time (e.g. Gulati & Srivastava, 2014; Vissa, 2011, 2012).

An influential study of Indian technology entrepreneurs (Vissa, 2012) conceptualizes entrepreneur agency by differentiating between network broadening and network deepening actions. The former describes actions where an entrepreneur engages directly with people outside of his or her network to gain new contacts, while the latter describes actions where an entrepreneur invests time to strengthen the relationships with the contacts already in his or her network. Vissa (2012) argues that entrepreneurs essentially only have the choice between one of these two options or a combination of both when developing their network. The choice of networking mode (or division of time among alternative networking modes) is proposed to significantly influence entrepreneurs' effectiveness in growing their network and gaining new business contacts. Specifically, it is postulated that a predominant focus on network deepening actions, i.e. strengthening relations with existing contacts, will lead the entrepreneur to have to rely on referrals from existing contacts to acquire new ones. Such a reliance was further found to be detrimental for acquiring new business contacts, as it was shown that a lower reliance on referrals for network growth, i.e. through the predominant use of network broadening actions, was favorable for attaining new contacts. In discussing these findings it was argued that the costs of relying on referrals outweigh the benefits of referrals (Vissa, 2012). Specifically, it was proposed that overly relying on referrals limits the chances of acquiring new contacts, as the number of potential targets is limited. This is also suggested to diminish the quality of such contacts for the focal entrepreneur, because the pool of potential contacts is smaller. Further, it is argued that fewer new connections will be formed, because the usually higher-powered actor, i.e. the target, will not be able to shape potential contracts with the focal entrepreneur to represent this power asymmetry and will be more likely to abstain from entering a relationship altogether (Vissa, 2012).

The preceding section lays the foundation for the ensuing theoretical discussion by providing insights into the application of network theory in the field of entrepreneurship. In doing so, findings on venture development and the effects and developments of networks throughout the venture development process are reviewed to allow for a well-grounded understanding of the succeeding discussion in this study.

3 Toward a Contingency Approach to Entrepreneurs' Network Agency

In the preceding literature review, it is pointed out how networks influence people and organizations and, more importantly for this thesis, how such networks develop. These network developments have also been amply studied in the entrepreneurship literature. It was found that founders' business related networks, including investor, business partner, supplier and customer networks change significantly as businesses develop, from being socially embedded, i.e. shaped by the founder's social environment and former colleagues, to being more strategically planned and task-oriented (e.g. Hite & Hesterly, 2001; Larson & Starr, 1993). Further, it was highlighted in the literature that different types of networks might be needed at different times in the venture life cycle, emphasizing the need for a "relational mix" of reputational and co-operative networks (Lechner et al., 2006). Also, in relation to tie strength, it has been recognized that different ties (strong vis-à-vis weak) might be needed at different times and for different purposes (e.g. Krackhardt, 1992).

In a seminal paper in the area of entrepreneurial network agency, Vissa (2012) makes an absolute claim by proposing that a lower reliance on referrals, brought about through the use of network broadening actions, will universally be more effective, i.e. lead to the creation of more new business contacts, than a higher reliance on referrals, supported by the use of network deepening actions. However, given the acknowledged developments of networks and network needs of entrepreneurs, an agency approach that defines appropriate networking actions contingent to the current state of a venture can be argued for. Introducing such a contingency approach to entrepreneurial network agency can prove to be beneficial for both academia and practitioners. As the network needs of entrepreneurs change throughout the development of a new venture (Lechner et al., 2006), it is possible that also the networking behavior of entrepreneurs is likely to change in order to cater to these changing network needs. Establishing a fit between networking behavior and venture maturity can potentially enable entrepreneurs to create more new business contacts in the most efficient manner. Better understanding what drives entrepreneurial agency at different stages of their venture will allow the literature to better predict network development and to advise best practices to entrepreneurs.

3.1 Reliance on Referrals and New Business Contacts

Referrals, i.e. the introduction of a focal entrepreneur to a target through a mutual contact, provide many potential benefits to entrepreneurs. Most importantly, they serve as a legitimizing device, helping entrepreneurs to overcome their liability of newness (Freeman et al., 1983) through the endorsement of a referee (Vissa, 2012). In regards to the creation of many new business contacts, however, the literature also identified a number of disadvantages of using referrals (Vissa, 2012). Most noteworthy, it has been argued that in order to use referrals, entrepreneurs have to engage in network deepening actions, i.e. investing their time in strengthening the ties to existing contacts in their network, so that those existing contacts are more likely to refer them to a potential target contact (Vissa, 2012). Investing time in such network deepening actions does, however, come at the cost of having less time to engage in network broadening actions. These network broadening actions include searching and contacting potential business contacts directly without the use of a referral. These actions have been found to generate a larger pool of new connections from which business relationships can emerge compared to network deepening actions and an associated high level of reliance on referrals (Vissa, 2012).

Moreover, the use of referrals has been argued to introduce a behavior governing facility to the relationship of the focal actor and a potential target contact through the existence of the mutual contact, the referee. This mutual contact and the associated reputational effects have been suggested to make it less desirable for a potential target to engage in a business relationship with the entrepreneur. The reason for this was proposed to be the limited action set available in negotiations to the target, who is suggested to be the higher-powered actor in a target-entrepreneur relationship (Vissa, 2012). The target is proposed to be the higher-powered party in the relationship, because they will usually be in business longer than the focal entrepreneur and are likely to be in a position in which the focal entrepreneur relies more on their business than they rely on the business with the focal entrepreneur. Essentially, it was proposed that targets would not be able to fully exert their power to create contract conditions favorable for them at the expense of the focal entrepreneur. This has been argued to limit the value of using referrals, as it is proposed that targets are less interested in connecting to a focal actor when introduced through a referral (Vissa, 2012). Ultimately, this effect will make a high level of reliance on referrals less effective in generating new business contacts compared to a low level of reliance on referrals, i.e. directly contacting potential targets.

Following these arguments, it has been proposed that high reliance on referrals will be associated with fewer new business contacts created compared to a low level of reliance on referrals. Hence, in line with the argumentation of Vissa (2012), the following formal hypothesis is proposed.

Hypothesis 1 (H1): The higher (lower) the level of reliance on referrals of a founder, the fewer (more) new business contacts a founder will generate for a business.

3.2 Venture Maturity and New Business Contacts

The business networks of founders evolve as their business matures. At the outset of a venture, networks have been found to be predominantly founder-dependent, i.e. embedded in the founder's social circumstances, comprising of family, friends and former business contacts (Hite & Hesterly, 2001; Larson & Starr, 1993). With increasing maturity, these networks develop to be more task-oriented and professional. These networks include more industry insiders, potential suppliers and buyers and possible collaborators. Following from this network dynamic, it can be assumed that as businesses mature, founders are in need to establish business relationships with a more diverse group of contacts that potentially comprises of a larger number of overall contacts compared to their needs at the outset of a venture. To meet this need of growing ones network of business contacts when scaling up the business and driving the growth of the venture in the later stages of the business (Larson & Starr, 1993), founders can be argued to establish more new contacts as their venture becomes more mature compared to when they started their business and were able to rely on a smaller number of partners and were potentially more involved with other activities, such as product development and business model validation (Blank, 2007; Marmer et al., 2011). Moreover, as their business matures and they grow their operations, founders are also likely to establish more ties that, in turn, can link them to new contacts. As the number of such links increases, founders will be introduced to new potential business contacts more often, allowing them to create more new business contacts compared to founders of less mature ventures.

Furthermore, it has been established in the literature that new ventures and inexperienced founders are subject to a liability of newness (Freeman et al., 1983). This liability of newness can be assumed to increase the search costs for new entrepreneurs looking for new business contacts, as potential targets are less likely to be willing to engage with the focal entrepreneur. This effect will either lead entrepreneurs to spend more time on searching for potential business contacts, or will lead them to establish fewer new business relationships compared to founders not exhibiting a liability of newness due to a more advanced maturity of their venture. With founders being subjected to many different demands, the latter seems more likely. As a venture matures and establishes a success record, e.g. is able to report revenues or profits, the liability of newness is likely to diminish (Freeman et al., 1983). With a less pronounced liability of newness and the associated lower search costs when searching for new business contacts, entrepreneurs can be argued to be more likely to establish more new business relations as their venture matures compared to when they started their venture. Based on these arguments, it is proposed that as ventures mature, founders will be able to generate more new business contacts for their venture compared to the early days when they were subjected to a liability of newness and where not yet in need of a very wide network.

3.3 Reliance on Referrals and Venture Maturity: A Contingency Perspective

The baseline hypothesis presented above assumes a passive role of the entrepreneur, as networking actions, represented by the level of reliance on referrals, are assumed to be static and entrepreneurs are assumed to be dependent on their venture's age when searching for new contacts. This section puts forward a contingency perspective, proposing that networking actions should be fitted to the maturity level of a venture.

It has been argued that relying on referrals limits entrepreneurs' pools of potential contacts, ultimately leading to fewer new business relationships that can possibly be crucial for the success of a venture, especially at an early stage of venture development. However, it can be said that this stage in the life of a venture is also precisely the time when founders will only have a limited number of existing contacts from which referrals can emerge. Hence, the search pool of potential targets is even more restricted for entrepreneurs relying on referrals at an immature stage of their venture. Further, building on the arguments of Larson & Starr (1993) and Hite & Hesterly (2001), the existing ties of early stage founders are likely to be connected to their personal background, meaning that they are likely to consist of former colleagues, family members or friends. Such socially embedded contacts can be argued to be more likely to be strong ties (Granovetter, 1973). In line with Granovetter's (1973) reasoning, it can be said that those strong ties that the focal entrepreneur is predominantly connected to are less likely to be bridging ties, i.e. ties that are likely to connect the entrepreneur to people outside of his existing network, and, thus, less likely to provide novel information to the entrepreneur. Referring the focal entrepreneur to potential business contacts that the referee, i.e. the entrepreneur's current contact, identifies as potentially useful for the entrepreneur can be thought of as the bridging behavior that Granovetter (1973) argues for. This line of reasoning is supported by the notion put forward by Hite & Hesterly (2001), proposing that founder networks are very dense at the outset of a venture and decrease in density as the venture matures. Hence, it can be said that entrepreneurs in dense networks can be considered to have fewer weak bridging ties, leading to less novel information generated. Following, entrepreneurs that rely on referrals at an early stage of their venture and, thereby, limit themselves to the connections of their existing, potentially strong, ties, can be argued to be less successful in generating new business contacts than those entrepreneurs who engage in network broadening actions and contact potential targets directly, without the use of a referral. At a later stage of venture maturity, a time when entrepreneurs have available to them a vast network of contacts, arguably consisting of more weak than strong ties (Hite & Hesterly, 2001), they are more likely to receive referrals from weak ties that can connect them to novel information in the form of, for example, interesting business opportunities. Hence, it can be said that founders of more mature businesses will more likely be able to successfully rely on referrals in their search for new business contacts than founders of immature businesses at an early stage of the venture life cycle.

Adding to the argument that weak ties are more likely to provide valuable referrals to the focal entrepreneur due to the fact that they are more likely to know people outside of the existing network of the focal entrepreneur, it can be reasoned that generating referrals from such weak ties will be more difficult for early stage entrepreneurs compared to entrepreneurs of more seasoned ventures. The reason for this is argued to be based in the liability of newness (Freeman et al., 1983) that new ventures are subjected to. This liability of newness, brought about by the absence of a known brand name, profit record, or potentially investor backing, will make it difficult for a founder's contacts to evaluate his or her venture appropriately. This inability to comprehensively judge the value of a business will be especially pronounced among weak ties, because they have a less developed relationship with the focal entrepreneur and will not be able to assess the business based on their personal relationship with the founder in the same way that strong ties might be able to. Based on the potential insecurity about the value of the founder's venture, a founder's weak ties can be argued to be less likely to freely refer the founder to their contacts. The reason for this being that, while the introduction of a referee to the entrepreneur-target relationship imposes reputational governing effects on the target, referring a relatively unknown entrepreneur to a target might also present reputational effects for the referee. Referees can be argued to be subjected to a potential risk of putting their own reputation in jeopardy by referring to their contacts a founder, whose business they are not able to accurately evaluate. For example, referees might be reluctant to refer an entrepreneur out of fear that the resulting business relationship could be unsuccessful, potentially wasting their contacts' time and money and that such events could reflect on them, negatively impacting their own reputation and existing relationships to their contacts. Following this argumentation, it can be reasoned that, based on the liability of newness, early stage entrepreneur will find it more difficult than their late stage counterparts to generate referrals from weak ties, i.e. those referrals that have been proposed to be most valuable to entrepreneurs. Hence, relying on referrals can be argued to be less effective for early stage entrepreneurs when trying to generate new business contacts compared to founders of more mature businesses. Following, early stage entrepreneurs are argued to be more successful by contacting targets directly to add weak ties to their networks, who have been found to provide a legitimization effect for new ventures (Elfring & Hulsink, 2003).

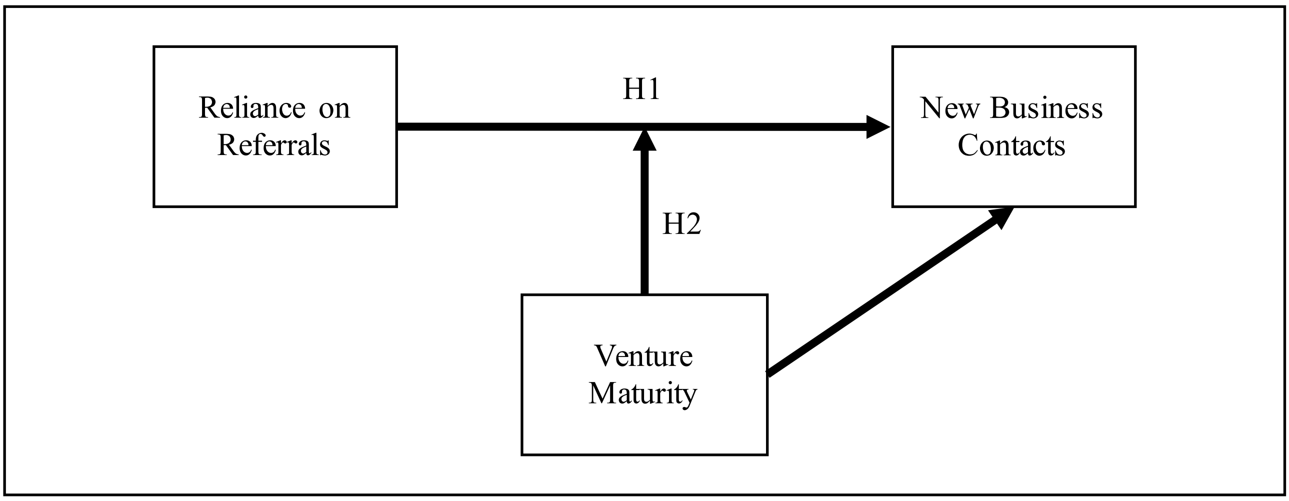
In the literature, it has been argued that the reputational governing mechanism introduced to an entrepreneur-target relationship through the existence of a referee impedes the generation of new business relationships, because targets are less able to exert their negotiation power on entrepreneurs (Vissa, 2012). This effect can be assumed to be especially pronounced in the early stages of a firm's development as the power asymmetry (Dwyer & Walker Jr, 1981) between target and focal entrepreneur will be most prominent at this point. Following, it will be especially difficult for founders of immature business to successfully generate new business contacts through the use of referrals, as high-powered targets are most likely to be looking to exert their negotiation power on low-powered partners (Bonacich, 1987; Markovsky et al., 1988; Marsden, 1983). Conversely, it can be argued that, due to a reduced or eliminated liability of newness (Freeman et al., 1983), this reputational governing mechanism of using referrals will be less pronounced for more mature ventures. With diminishing power asymmetry between the target and the entrepreneur, targets can, thus, be argued to be more inclined to engage in a referral-facilitated business relationship with late stage founders. The heightened negotiation power of the focal entrepreneur reduces the relative power of the target (Bonacich, 1987; Markovsky et al., 1988; Marsden, 1983), reducing the effect introduced through the existence of a referee. For example, it could also be the case that for a very successful entrepreneur, targets themselves are happy to be introduced and get the chance to do business with the founder. This would essentially eliminate the negative effect of referrals. Following, it can be argued that due to the less pronounced negative effect of referrals, founders of more mature businesses will be more successful in searching for new business contacts through using referrals compared to their early stage counterparts.

Finally, it can be reasoned that as their business matures, founders will have a larger business to look after. With ongoing operations and a larger amount of existing business partners, employees and customers in the later stages of the venture life cycle (Blank, 2007; Marmer et al., 2011), it can be assumed that founders will have to be increasingly careful with what they spend their time on. The literature has identified the screening facility of referrals (Vissa, 2012). On the one hand, this screening facility limits the pool of potential new contacts for the focal entrepreneur. On the other hand, when relying on referrals from a broad range of people, this screening facility could also be argued to benefit founders by ensuring that they meet only those people that can potentially be valuable to their business. Hence, it could be argued that by using referrals at a late stage in the business, entrepreneurs are able to spend their networking time more efficiently by only speaking to potentially valuable people. Moreover, with the increasing demands of their business, entrepreneurs can be argued to be able to spend less time on networking overall, making it prohibitively costly to search for and contact people directly in contrast to talking to a select set of people that the entrepreneur's existing contacts have already deemed a fit for the entrepreneur. Following, it can be argued that late stage entrepreneurs will be more successful in generating new business contacts through referrals than by contacting potential targets directly. Conversely, early stage entrepreneurs who do not have a large existing network from which referrals can be generated might not be able to rely on referrals to the same extent, forcing them to also contact potential targets directly as relying on referrals might not generate enough new business contacts.

Following this argumentation, it is proposed that relying on referrals in the later phases of a venture will reduce search costs for entrepreneurs searching for new business contacts. Moreover, using referrals at a later stage, being able to generate referrals from a large number of weak ties, increases the likelihood that referred contacts are valuable to the focal venture as the information and opportunities they present are more likely to be novel in nature. Furthermore, it is argued that it is easier for late stage founders to generate referrals from their weak ties as they are less subjected to a liability of newness (Freeman et al., 1983) than their early stage counterparts. Moreover, the restricting nature of the reputational governing facility of referrals will be less pronounced for founders of more mature ventures than for founders of of immature ventures. Consequently, relying on referrals in the search for new business contacts is argued to be more difficult for founders at an early stage compared to those of mature ventures. While both high and low levels of reliance on referrals are possible for all founders, a fit argument is derived from the discussion above that proposes that a high level of reliance on referrals will be less effective for early stage founders than for their late stage counterparts. Hence, the following formal hypothesis is derived from this argument.

Hypothesis 2 (H2): The more (less) mature a company, the less (more) negative the effect of reliance on referrals on the creation of new business contact will be.

Figure 1 Contingency Model for Entrepreneurs' Network Agency



This argumentation, summarized in Figure 1, extends a fit perspective, proposing that the networking mode employed by entrepreneurs, i.e. the chosen level of reliance on referrals, should be contingent on the maturity level of the firm. Fitting the chosen networking behavior to the maturity level is hypothesized to benefit the efficiency and effectiveness of generating new business contacts, ultimately leading to more new contacts acquired. While using referrals is hypothesized to be a good fit for mature ventures, immature ventures are hypothesized to benefit from not relying on referrals but engaging with potential targets directly.

4 Methods

This research is primarily based on a quantitative study, the empirical findings of which are used in the analysis of the hypotheses presented in this thesis. In addition to the quantitative study, four qualitative interviews with entrepreneurs were conducted to enrich the discussion of the empirical findings through insights into the underlying behavioral and motivational antecedents of entrepreneurs' networking behaviors. In the following, the methods of the quantitative study are explained and the sample and procedure of the enhancing, qualitative interviews elaborated on.

4.1 Sample and Research Design

For the quantitative part of this study, a sample of entrepreneurs, including founders, co-founders and early employees, was asked to answer an electronically distributed questionnaire. The sample comprised of a total of 84 respondents, including 82 founders or co-founders and 2 early employees. Geographically, the sample consisted of 29 respondents from Denmark, 19 from Germany, 14 from the United States of America, 13 from the Netherlands, 5 from Singapore, 2 from the United Kingdom and 1 from each Liechtenstein and Italy. Given the diverse national backgrounds of respondents, it can be argued that this sample was not biased by nationality. The companies of the sampled respondents were on average 22.5 months in business. Moreover, 53 respondents reported to have started at least one business prior to their current venture and, overall, respondents had founded 1.54 ventures on average before their current venture. The majority of respondents operated in the information and communication sector with 25 respondents reporting to be in this business. Further, 10 respondents reported to be in service industry, 6 respondents came from the arts and entertainment business and 6 from the manufacturing industry. This dominance of information and communication companies in the sample reflects the ongoing trend of software companies, mostly providing online services, representing the largest share of new ventures founded and venture capital funds received (National Venture Capital Association, 2016).

Respondents were selected from a list of people stating “founder” or “co-founder” as their title on the professional network platform LinkedIn. The two early employees were generated through forwarding from other respondents. Participants were approached directly to answer the survey. Of a total of 184 potential respondents contacted, 84 fully and 15 partially completed the questionnaire, leading to a response rate of around 46 per cent. Responses to the survey were collected anonymously.

The literature has identified one major obstacle to network dynamics research, namely the need take measurements at two points in time to capture developments (e.g. Hoang & Antoncic, 2003). To overcome this problem in the limited timeframe available for this study, this research deviates from the established research design of having multiple interactions with respondents and, instead, employs an approach that only requires one point of measurement. Specifically, respondents were asked to report on a number of state variables, such as the maturity of their company, their networking preferences and various controls, one year in the past and then reported on outcome variables at the end of this one year period, i.e. at the present. By relying on self-reporting from respondents, this research design allows to take measurements only once, minimizing the engagement necessary from respondents and allowing for a short study timeframe. However, it should be noted that while this research design brings with it several benefits, relying on self-report can also pose potential drawbacks for the study design. In this research design in particular, where respondents have to report about their behavior and the state of their company one year in the past, subjects might face difficulty recollecting such facts accurately. Thus, potential biases cannot be ruled out completely.

4.2 Measures

Dependent Variable: New Business Contacts. Following the research of Vissa (2012), the amount of new business contacts serves as the dependent variable in this research. Business partners are defined as potential customers, suppliers or collaborators, such as alliance partners or investors to the business. Respondents reported the amount of new business partners they established over the course of the last year, analogous to the research design of Vissa (2012). More specifically, respondents were asked to answer the question *"In the last year, how many new business relationships (customers, suppliers, partners) have emerged from the contacts you initiated?"*. Following Vissa's argumentation, this one-year time frame is appropriate since it allows for a clear indication of whether a potential contact has "gone cold" or whether a business relationship is established from it. Contacts that did not yield some sort of business relationship within the first twelve months after the initial contact were argued to be unlikely to yield such a relationship in the future (Vissa, 2012). *New Business Contacts* was coded as the count of each new such relationship.

Independent Variable: Reliance on Referrals. Because the respondents' level of reliance on referrals, influenced by their networking behavior, i.e. their use of network broadening and network deepening actions, could not be objectively observed in the research design at hand, entrepreneurs self-reported on their networking preferences one year prior to the time of the measurement. In order to do so, I developed a novel scale for the measurement of reliance on referrals. This construct consists of five items, two of which are reversed (see Appendix A for list of items). For each of these items, respondents reported the level of their agreement (applicable one year prior to the time of measurement) to a specific statement on a 5-point Likert scale (ranging from totally disagree to totally agree). The coherence of the items in this construct was tested using confirmatory factor analysis. The overall coherence of the items in the construct was found to be acceptable with an overall Cronbach's alpha of 0.74 (Table 1). Single item alphas for items R1, R2, R4R and R5R, although partly below the 0.7 threshold, do not severe the overall coherence. The model fit, as tested through confirmatory factor analysis, showed an acceptable fit, represented by a chi-square value 5.86 at 5 degrees of freedom and, thus, failing to reject the null hypothesis of model fit at $p = 0.3199$. To calculate a respondent's overall *reliance on referrals* the average of these five items was computed to comprise a reliance on referrals score.

Table 1 Construct Coherence Reliance on Referrals

Item	Item-Test Correlation	Item-Rest Correlation	Alpha
R1	0.6749	0.4875	0.6961
R2	0.6260	0.4072	0.7242
R3	0.7092	0.4982	0.6920
R4R	0.7426	0.5507	0.6705
R5R	0.7356	0.5541	0.6700
Test Scale			0.7369

Notes. N=84, items R4R and R5R are reversed

Venture Maturity. The second independent variable, venture maturity, is measured as the stage of a venture in the venture life cycle one year prior to the time of measurement. As public records for startup ventures, such as those participating in this study, are not available, venture maturity was measured based on the indications respondents reported regarding the state of their venture one year prior to the time of this study. To measure this variable, I developed a novel construct that builds on the venture life cycle stage models of Marmer et al. (2011) and Blank (2007). Both of these life cycle models consist of four clearly distinguishable stages. However, after testing the construct with several respondents, a fifth option was added to each item, representing a more mature state of a company. This was implemented because respondents, especially those that had been in business for a few years, did not identify with any of the stages proposed by Marmer et al. (2011) and Blank (2007), as these models describe the process of building a company but do not include a stage describing mature operation. The inclusion of a fifth alternative to each item, representing such mature operation, eliminated this problem. The resulting construct consists of four items (Appendix B), all of which inquire about the stage of the venture by prompting respondents to choose among five alternative statements, each of which is clearly associate with one stage of the venture life cycle. The coherence of these four items was found to be satisfactory with a Cronbach's alpha of 0.8546 (Table 2). Moreover, the model was also found to fit the data well with a chi-square value of 3.16 at 2 degrees of freedom, failing to reject the null hypothesis of model fit at p = 0.2058. The overall *venture maturity* was then coded as the average of the four items in the scale.

Table 2 Construct Coherence Venture Maturity

Item	Item-Test Correlation	Item-Rest Correlation	Alpha
S1	0.7803	0.6106	0.8501
S2	0.8709	0.7614	0.7879
S3	0.7955	0.6320	0.8418
S4	0.8908	0.7903	0.7739
Test Scale			0.8546

Notes. N=84

Reliance on Referrals – Venture Maturity Interaction. To test the interaction hypothesis of this study (H2), the overall reliance on referrals score is multiplied with the venture maturity score. As both scales range from 1 to 5, such simple multiplication was possible without the need for standardization of the scales. Through this multiplication, a new variable, called *reliance on referrals – venture maturity* interaction was generated.

Control Variables. Similar to the research design of Vissa (2012), this research controls for both firm specific and founder specific effects. In terms of firm specific effects, variables were included that can be argued to have an effect on the amount of new business contacts established by the founder. The first such variable that is controlled for in this research is *venture age* measured in months. It is important to note here that venture age is not equal (however highly correlated in this sample) to venture maturity, as different businesses develop at different speeds. However, longer time in the business allows founders to have spent more time in the industry to grow their network. From that larger network, it could be argued, more new business contacts can emerge. The second firm specific control is *external funding*. This variable was coded as a dummy variable, with 1 indicating the presence of external funding and 0 indicating the absence of such funding. Similar to a referral, the existence of external funding through business angles or venture capitalists provides a legitimizing function to new ventures (Hsu, 2004). For example, if a prominent venture capital firm invested in a company, potential business partners are more likely to enter into business with the focal company. Following a similar argument, *firm size*, as measured by the amount of full-time employees, is also controlled for. A larger company with more employees can also be argued to add to the legitimation of a company, making it easier to acquire new business contacts.

Turning to founder specific control variables, the research design controls for overall entrepreneurial experience of the founder by measuring the number of *earlier companies* the founder has founded. Such entrepreneurial experience, while not necessarily providing a network in the specific industry, can provide the entrepreneur with a network in the startup environment, arguably facilitating the creation of new business contacts through tips or referrals. Further, this study controls for *industry experience* of entrepreneurs. This measure was self-reported on a 5-point Likert scale. Industry experience will allow founders to easily tap an existing network in the industry to create new business contacts for the focal venture and will make it easier for a founder to be referred or directed to appropriate targets. In line with Vissa's (2012) research design, the final founder specific control measure in the design of this study is the founder's *search activity*. This was measured as the self-reported number of contacts a founder initiates within a typical month, i.e. the number of people a founder would reach out to within a month to establish business relationships. Founders who reach out to potential contacts more often can be argued to have a higher chance of establishing more new business contacts.

4.3 Statistical Analysis Approach

To test the hypotheses postulated in this study, three negative binomial regression models are tested. First, the effects of the control variables on the dependent variable, i.e. the amount of new business contacts, is tested. In a second step, the main effect proposed by hypothesis H1 is tested along with the main effect for venture maturity and the the control variables. Finally, the moderating effect suggested by hypothesis H2 is tested along with with all other effects in a third model. Hence, the following three regression models are used in this study.

Base Model (Model 1). This model regresses all control variables against the log of the count of new business contacts.

$$\log(Count\ of\ New\ Business\ Contacts) = \beta_0 + \beta_1 * Venture\ Age + \beta_2 * Number\ of\ Employees + \beta_3 * External\ Funding + \beta_4 * Industry\ Experience + \beta_5 * Earlier\ Companies + \beta_6 * Search\ Activity + e$$

Main Effects Model (Model 2). This model includes all variables of Model 1 and adds the two main effects of this research, i.e. the level of reliance on referrals and the score for venture maturity.

$$\begin{aligned}\log(\mathit{Count\ of\ New\ Business\ Contacts}) &= \beta_0 + \beta_1 * \mathit{Venture\ Age} + \beta_2 * \mathit{Number\ of\ Employees} + \beta_3 * \mathit{External\ Funding} \\ &+ \beta_4 * \mathit{Industry\ Experience} + \beta_5 * \mathit{Earlier\ Companies} + \beta_6 * \mathit{Search\ Activity} + \beta_7 \\ &* \mathit{Reliance\ on\ Referrals} + \beta_8 * \mathit{Venture\ Maturity} + e\end{aligned}$$

Interaction Effect Model (Model 3). This model includes all variables of Model 1 and Model 2 and introduces the interaction effect, namely reliance on referrals * venture maturity.

$$\begin{aligned}\log(\mathit{Count\ of\ New\ Business\ Contacts}) &= \beta_0 + \beta_1 * \mathit{Venture\ Age} + \beta_2 * \mathit{Number\ of\ Employees} + \beta_3 * \mathit{External\ Funding} \\ &+ \beta_4 * \mathit{Industry\ Experience} + \beta_5 * \mathit{Earlier\ Companies} + \beta_6 * \mathit{Search\ Activity} + \beta_7 \\ &* \mathit{Reliance\ on\ Referrals} + \beta_8 * \mathit{Venture\ Maturity} + \beta_9 * \mathit{Reliance\ on\ Referrals} \\ &* \mathit{Venture\ Maturity} + e\end{aligned}$$

4.4 Interview Sample and Procedure

To validate and enrich the findings of the quantitative study, four semi-structured interviews were conducted with entrepreneurs. The purpose of these interviews is to add to the quantitative study by eliciting the motivations of entrepreneurs about how they network and their opinions about different networking techniques. This motivational aspect and the opinions underlying the exhibited behavior are factors that are not easily captured in a quantitative study. However, such insights allow for a validation of the research insights generated through the quantitative study and provide insights into the underlying causes of the quantitative findings on a personal level.

While all of the entrepreneurs interviewed are currently based in Copenhagen, Denmark, their backgrounds are rather diverse with two stemming from Russia, one from Denmark and one from India. Also in terms of prior experience, there is a certain divergence with three of the interviewed entrepreneurs having already founded one or multiple business before their current business and one being a first time entrepreneur. Three of the four businesses are from the software sphere, while applications are diverse, ranging from personal music to education to online clothes-sizing. The non-software-focused business provides legal service to air travelers.

All interviews were conducted in person at the interviewees premises, allowing them to feel at ease in their natural environment and also helping them to more easily recall their normal behaviors, in this instance their networking behaviors (Blomberg, Giacomi, Mosher, & Swenton-Wall, 1993). The semi-structured interview approach was used to provide guidance to the interview, but at the same time to not restrict interviewees too much so that a conversation was able to develop that could lead interviewees to share their genuine feelings, behaviors and opinions (Blomberg et al., 1993). All entrepreneurs were asked approximately the same questions, first inquiring about their business, background in their field and beyond as well as the development of their business since its inception. In a second step, the entrepreneurs' networking behavior was investigated and how this behavior changed along with the development of their companies. Further, their opinions on different networking techniques and their effectiveness were asked about. Finally, it was investigated whether they believed that the effectiveness of different networking techniques, specifically relying on referrals and contacting prospects directly, changed over time as their business matured.

5 Results

5.1 Quantitative Results

The average entrepreneur in this study's sample generated 43 new business contacts within one year by contacting on average around 33 targets each month (Table 3). Ventures in this study were on average in stage 2 of the venture life cycle. Entrepreneurs involved in this study varied in their preferred networking behavior. With a mean of 3.05 for reliance on referrals, no clear preference was evident across all entrepreneurs. Specifically, the choice of networking behavior between high and low levels of reliance on referrals was relatively evenly spread across both mature and immature ventures. To better illustrate this, I split the two variables *venture maturity* and *reliance on referrals* at the mean and created a 2-by-2 matrix. As is shown in Figure 2, all quadrants of the matrix are populated. This underscores the fact that, while there exists a fit argument linking the level of reliance on referrals and venture maturity, following the reasoning in the theory development section of this thesis, exhibited entrepreneur behavior does not necessarily follow the proposed fit.

Figure 2 Distribution of Venture Maturity and Reliance on Referrals

		Venture Maturity	
		Low	High
Reliance on Referrals	Low	25	20
	High	23	16

Table 3 provides the correlation matrix for the variables included in this study. As can be seen, multicollinearity is not a problem for the most part. However, it is also apparent that the two control variables *venture age* and *number of employees* are highly correlated with the explanatory variable *venture maturity*. This is not surprising. While measuring two different constructs, the correlation of venture age and maturity makes intuitive sense. An old venture does not necessarily have to be mature, but the likelihood is definitely increased. Moreover, it can be argued that firms that are more mature, e.g. have secured funding and are profitable (Ber & Yafeh, 2004), are more likely to survive and, thus, become older. A similar rationale holds for the correlation of the number of employees and venture maturity. More mature ventures that are scaling up their sales and marketing activities as well as their operations (Blank, 2007; Marmer et al., 2011) can also be considered to be likely to need more employees. To avoid problems of multicollinearity in the models, the variables *venture age* and *number of employees* were excluded from the regression models.

Table 3 Correlation Matrix and Descriptive Statistics

	1	2	3	4	5	6	7	8	9
1) New Business Contacts	1.00								
2) Reliance on Referrals	-0.18	1.00							
3) Venture Maturity	0.10	0.04	1.00						
4) Venture Age	-0.09	-0.08	0.68**	1.00					
5) Number of Employees	0.17	-0.11	0.52**	0.49**	1.00				
6) External Financing	0.09	-0.22†	-0.05	0.03	0.09	1.00			
7) Industry Experience	-0.04	0.05	0.17	0.24†	0.18	0.12	1.00		
8) Earlier Companies	-0.06	-0.17	0.01	0.12	0.15	0.17	0.38**	1.00	
9) Search Activity	0.15	-0.33*	-0.09	0.00	-0.03	0.27†	-0.02	-0.01	1.00
Mean	43.89	3.05	2.12	22.50	4.76	0.60	3.37	1.54	33.92
Std. dev.	84.77	0.70	0.94	18.23	5.95	0.49	1.16	2.00	70.69
Min. values	0.00	1.20	1.00	2.00	1.00	0.00	1.00	0.00	0.00
Max. values	550.00	4.80	5.00	90.00	30.00	1.00	5.00	12.00	500.00

Notes. Number of observations (N) is 84 for all variables.

**,* and † indicates a significance level of 0.1%, 1% and 5%, respectively

Main Effects. Table 4 reports the results of the regression analyses on the count of new business contacts generated. Because the variable is a non-negative count with overdispersion, negative binomial regression is used in the analysis. The control variables used in this study were all insignificant at the 10 per cent significance level in the base model (Model 1), explaining the low model fit of this model. Hypothesis 1 predicted that a higher level of reliance on referrals in the networking behavior of a founder leads to fewer new business contacts generated. As shown in the table, the coefficient for *reliance on referrals* is negative and significant at $p = 0.03$ in the main effects

Table 4 Negative Binomial Regression Model for the Count of New Business Contacts

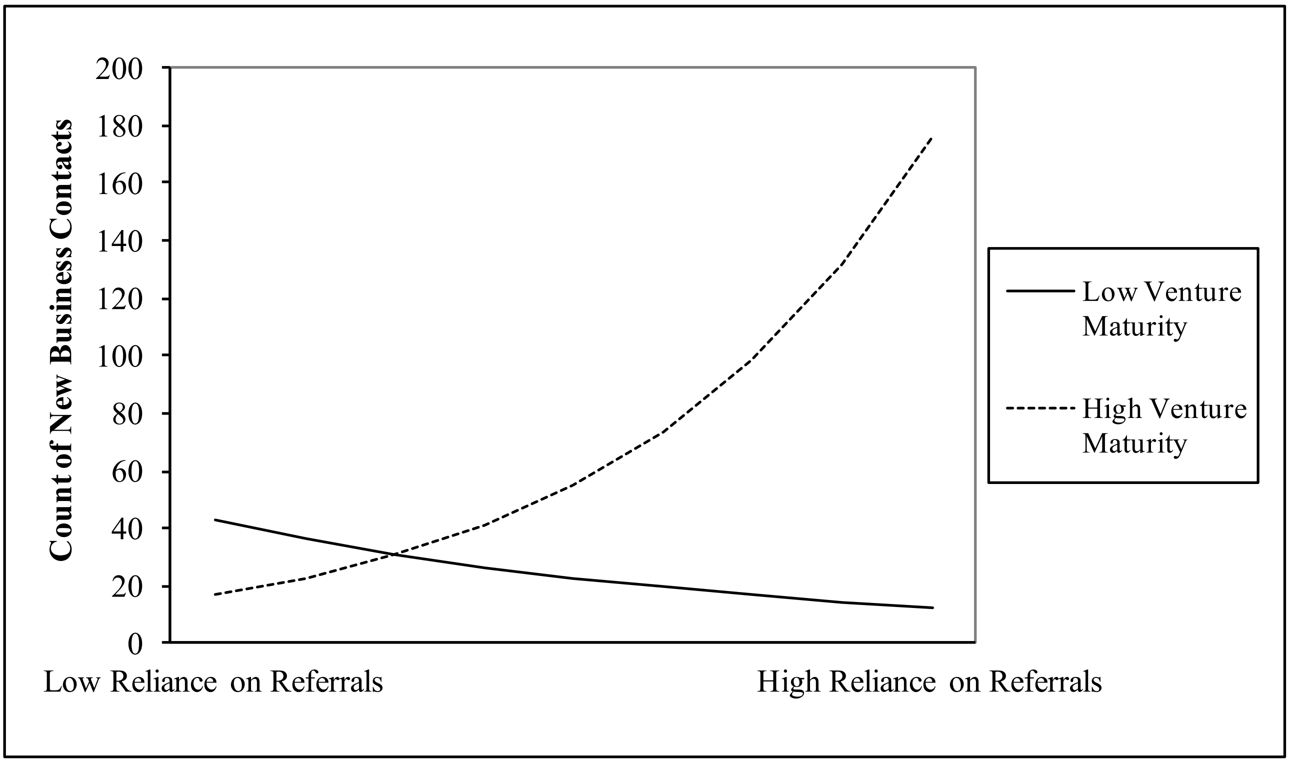
	Model 1	Model 2	Model 3
External Funding	0.419 (0.303)	0.320 (0.344)	0.235 (0.321)
Industry Experience	-0.135 (0.131)	-0.049 (0.136)	0.004 (0.130)
Earlier Companies	-0.103 (0.081)	-0.122 (0.075)	-0.101 (0.070)
Search Activity	0.003 (0.002)	0.003 (0.002)	0.005* (0.002)
Reliance on Referrals	-	-0.392* (0.178)	-1.536*** (0.339)
Venture Maturity	-	0.297* (0.121)	-1.731*** (0.513)
Reliance on Referrals * Venture Maturity	-	-	0.640*** (0.164)
Intercept	3.998*** (0.417)	4.294*** (0.727)	7.586*** (1.108)
LR chi-square	6.80	15.38*	30.61***
Log likelihood	-395.18	-390.89	-383.28

Notes. The dependent variable is the count of new business contacts created during a year as reported by respondents. Values in parentheses are standard errors. All models estimated using negative binomial regression.
***,** and * indicates a significance level of 0.1%, 1% and 5%, respectively

model (Model 2). This provides support for Hypothesis 1 and is in line with the effect identified by Vissa (2012). In the theoretical argumentation of this paper it was proposed that a higher level of maturity of a venture will lead to more new business contacts generated. The coefficient for *venture maturity* is positive and significant at p = 0.01 in Model 2, supporting these arguments. It should be noted, however, that with the introduction of the interaction term in Model 3, the coefficient for *venture maturity* changed to being negative and significant at p = 0.00. The control variables are all insignificant at the 5 per cent significance level for Model 2, showing that in this sample, they did not have a proven effect on the number of new business contacts generated.

Reliance on Referrals – Venture Maturity Interaction Effect. Hypothesis 2 proposed that with increasing maturity of a venture, the negative effect of reliance on referrals on the count of new business contacts generated will decrease, i.e. the more mature a venture, the less negative the impact of reliance on referrals on the creation of new business contacts. Conversely, this hypothesis predicts

Figure 3 Interaction Effect of Venture Maturity and Reliance on Referrals on Count of New Business Contacts



that for more immature ventures, reliance on referrals has a more negative effect on the count of new business contacts generated. The coefficient for the interaction term *reliance on referrals * venture maturity* is positive and significant at p = 0.00 in the interaction model (Model 3) (Table 4). This lends strong support for Hypothesis 2. In Figure 3, the regression results are plotted, highlighting the effect of venture maturity on the relationship of reliance on referrals on the count of new business contacts generated by a founder. The regression results are plotted according to the methodology proposed by Aiken and West (1991).

Robustness Checks. To test the validity of the regression models in this study, several robustness checks were performed. Most importantly, the three regression models were performed including the initially excluded control variables *venture age* and *number of employees*. Table 5 shows the results of this robustness check. In the base model (Model 1), both of these control variables were significant at p = 0.09 and p = 0.01, respectively. In the main effects (Model 2) and interaction effect model (Model 3), only *venture age* was significant at p = 0.00 and p = 0.05, respectively. Including these variables did, however, not impact the coefficients of the main effects and interaction effect. However, the significance of the main effects was reduced.

Second, the regression models were tested using standardized variables. This did not change the results for the interaction effect. It did, however, reduce the significance of the coefficient for *reliance on referrals* in both Model 2 and Model 3 (Table 6). Moreover, the directional change of the coefficient for *venture maturity* that was exhibited in the initial model was not observed in the standardized model.

Finally, the three regression models were tested controlling for country effects to investigate potential effects of nationality on the count of new business contacts generated. In these regression models, dummy variables for Germany, The Netherlands, Singapore and the United States of America were added to the original regression models. Denmark served as the base line for nationality. Respondents from Italy, the United Kingdom and Liechtenstein were excluded from this analysis as there were only one or two respondents from each of these countries, potentially distorting the outcomes of the regression analysis. As is shown in Table 7, while country effects for Germany and the Netherlands were significant at the 5 per cent level in the base model (Model 1), all country effects were insignificant in the main effects and interaction effect models (Table 7). Hence, it can be argued that, overall, country effects did not significantly influence the count of new business contacts in this study.

Table 5 Negative Binomial Regression Model for the Count of New Business Contacts Including Controls for Venture Age and Number of Employees

	Model 1	Model 2	Model 3
Venture Age	-0.12 (0.007)	-0.031*** (0.008)	-0.020 (0.010)
Number of Employees	0.064** (0.025)	0.039 (0.025)	0.014 (0.027)
External Funding	0.024 (0.309)	0.158 (0.314)	0.224 (0.309)
Industry Experience	-0.043 (0.131)	0.096 (0.126)	0.075 (0.128)
Earlier Companies	-0.121 (0.075)	-0.132 (0.070)	-0.115 (0.070)
Search Activity	0.005 (0.003)	0.005 (0.002)	0.005 (0.002)
Reliance on Referrals	-	-0.293 (0.193)	-1.110* (0.435)
Venture Maturity	-	0.534*** (0.148)	-0.825 (0.684)
Reliance on Referrals * Venture Maturity	-	-	0.409* (0.201)
Intercept	3.757*** (0.412)	3.459*** (0.843)	6.004*** (1.491)
LR chi-square	16.16*	30.11***	34.15***
Log likelihood	-390.50	-383.53	-381.51

Notes. The dependent variable is the count of new business contacts created during a year as reported by respondents. Values in parentheses are standard errors. All models estimated using negative binomial regression.
***,** and * indicates a significance level of 0.1%, 1% and 5%, respectively

Table 6 Negative Binomial Regression Model for the Count of New Business Contacts Using Standardized Variables

	Model 1	Model 2	Model 3
External Funding	0.419 (0.303)	0.320 (0.344)	0.235 (0.321)
Industry Experience	-0.156 (0.152)	-0.057 (0.158)	0.004 (0.150)
Earlier Companies	-0.207 (0.162)	-0.244 (0.150)	-0.202 (0.140)
Search Activity	0.188 (0.160)	0.183 (0.162)	0.336* (0.167)
Reliance on Referrals	-	-0.275* (0.125)	-0.126 (0.134)
Venture Maturity	-	0.278* (0.113)	0.205* (0.103)
Reliance on Referrals * Venture Maturity	-	-	0.422*** (0.109)
Intercept	3.474*** (0.222)	3.465*** (0.239)	3.39*** (0.224)
LR chi-square	6.80	15.38*	30.61***
Log likelihood	-395.18	-390.89	-383.28

Notes. The dependent variable is the count of new business contacts created during a year as reported by respondents. All variables except for the binary dummy for *external funding* are standardized. Values in parentheses are standard errors. All models estimated using negative binomial regression.

***,** and * indicates a significance level of 0.1%, 1% and 5%, respectively

Table 7 Negative Binomial Regression Model for the Count of New Business Contacts Including Country Controls

	Model 1	Model 2	Model 3
Germany	-0.683* (0.324)	-0.545 (0.360)	-0.410 (0.329)
Netherlands	0.813* (0.394)	0.605 (0.423)	0.451 (0.392)
Singapore	-0.791 (0.552)	-0.836 (0.547)	-0.746 (0.506)
United States	-0.673 (0.392)	-0.576 (0.391)	-0.335 (0.362)
External Funding	0.809** (0.303)	0.688 (0.354)	0.527 (0.338)
Industry Experience	-0.076 (0.129)	0.090 (0.133)	0.094 (0.129)
Earlier Companies	-0.212** (0.075)	-0.204** (0.073)	-0.161* (0.069)
Search Activity	0.003 (0.002)	0.003 (0.002)	0.004 (0.002)
Reliance on Referrals	-	-0.253 (0.191)	-1.358*** (0.354)
Venture Maturity	-	0.199 (0.130)	-1.633** (0.506)
Reliance on Referrals * Venture Maturity	-	-	0.588*** (0.165)
Intercept	3.355*** (0.445)	3.678*** (0.716)	6.947*** (1.143)
LR chi-square	19.68*	23.36**	36.44***
Log likelihood	-374.05	-372.30	-365.75

Notes. N=80. The dependent variable is the count of new business contacts created during a year as reported by respondents. Country variables are coded as dummies with Denmark being the base level. Values in parentheses are standard errors. All models estimated using negative binomial regression.
***,** and * indicates a significance level of 0.1%, 1% and 5%, respectively

5.2 Insights from Qualitative Interviews

The qualitative interviews were conducted to provide insights into the behavioral and motivational antecedents of entrepreneurs' networking behavior. To provide an overview of these insights, the qualitative findings are reported in an aggregated manner, thereby providing an understanding of the most important themes of these interviews (For detailed accounts of the interview proceedings, see Appendix C through F).

Networking Behavior. All four interviewed entrepreneurs reported that they predominantly rely on referrals or introductions when networking. The importance of such referrals was highlighted by all respondents. It was reported that referrals substantially increase their chances of being listened to when talking to potential target contacts. Moreover, it was made clear that through referrals, new potential business or other opportunities, e.g. marketing or press coverage opportunities, emerged, as existing contacts were able to refer the entrepreneur to people in their network that were able to provide such opportunities. While the value of referrals was highlighted by all respondents, one respondent made it especially clear where the value of referrals lies in her belief. Namely, the creation and facilitation of an initial contact. It was explained that referrals help to establish rapport with potential targets, making it more likely for targets to take meetings and engage in a conversation with entrepreneurs about potential business opportunities. In her belief, however, the value of a referral does not extend further than this and does not influence the decision of a target as to whether to do business with the entrepreneur or not. Hence, she did not feel that targets are more likely to engage in business relationships with the focal venture when introduced through a referral compared to when being contacted directly. The only mentioned exception to this is the case of investors. Respondents reported that when a potential investor got introduced to them by another investor who had already invested in the company, that new investor would be much more likely to invest themselves compared to when contacted without a referral. It is especially noteworthy at this point that none of the respondents had any reservations towards using referrals when they were available. None of the respondents saw any potential costs related to using referrals.

Compared to using referrals for a first contact, cold contacting targets was perceived to be difficult. Respondents reported from their own experience when being cold contacted via email or by phone and recalled that they hardly respond to such approaches. Generally, the feeling among interviewed entrepreneurs was that when contacting targets without a referral, it was difficult to get the targets' attention to engage in an initial discussion. This led some respondents to feel anxious about contacting targets without an introduction from a mutual contact. Hence, it was reported that whenever available, referrals were used to initiate a contact to a potential target.

Development of Networking Behavior. With businesses between 18 and 36 months old, all entrepreneurs had gathered substantial experiences in networking. It should also be noted, however, that most businesses were not yet fully profitable. As measured on the venture maturity scale developed for this research, all of the interviewed founders run businesses ranking above the mean of the sample. Based on being in their respective industries for a number of years, entrepreneurs were feeling that their approach to networking had changed based on the experiences they had made since founding their business. All entrepreneurs reported that they had become more organized and intentional about their networking efforts. It was felt that referrals were especially important in the beginning of their venture when a track record was missing. As their ventures grew and gained recognition, all entrepreneurs reported that networking became easier for them and that contacting new targets also got easier. With the backing of investors or a more well-known brand in their respective communities, entrepreneurs said that the anxiety that surrounded cold contacting potential contacts at the outset of their venture diminished to a certain extent. Moreover, improving reputation also led people within the focal entrepreneur's network to refer them to potential targets without the entrepreneur asking to be referred and to targets asking to be referred to the focal entrepreneur. It was also mentioned that with a growing network, entrepreneurs received many more referrals than at the beginning of their entrepreneurial project as they had more existing contacts that were happily referring them. Moreover, it was reported that entrepreneurs also became more structured in the way they asked for referrals. When they found someone who they would like to be connected to and had a mutual connection, they reported to draft an introduction email and would send that to the mutual contact for them to potentially adapt and then forward to the target. When contacting targets directly at conferences or trade fairs, entrepreneurs reported that they became a lot more structured in their networking behavior at such events with increasing experience. They reported that after having visited networking events without much preparation and with little success, they were now planning such events well ahead by researching potential targets and directly contacting them before events to set up meetings. With an improved track record and recognition in their industry, the success of such contacts was believed to have increased.

However, while entrepreneurs reported that contacting potential targets had become easier for them as they and their businesses developed, they still valued the use of referrals and reported that even at a more developed position of their business, they preferred to use referrals whenever they were available. Further, the benefits of a widened network, established throughout the course of the entrepreneurial venture, were highlighted. Specifically, it was reported that through a larger network, it was easier for entrepreneurs to be referred to desirable targets, because they were now more likely to have mutual contacts and through the more mature position of the focal venture, referees were more willing to refer them to potential targets.

6 Discussion

6.1 Contribution to Theory

The findings of this study are two-fold. First, the results by Vissa (2012) regarding the effect of an entrepreneur's level of reliance on referrals in networking on the count of new business contacts generated were confirmed with a different, more diverse sample in terms of both national and cultural background as well as venture development stage. This more diverse sample was facilitated by the use of a different study design that does not rely on multiple measurement points and, thus, requires a lower level of engagement from respondents. This supports the argumentation by Vissa that the costs of using referrals, i.e. the limited search pool of potential new contacts and the reputational governing mechanisms that can impede the formation of new business relationships from referral-facilitated contacts, outweigh the benefits of this behavior, ultimately making referrals a less preferable choice for growing entrepreneurial networks compared to contacting targets directly. The main effect findings for venture maturity on the count of new business contacts remain inconclusive in this study. While the results of Model 2 (Table 4) suggest a positive effect, the results of the interaction effect model (Model 3) provide an inconsistent picture. Potentially, an argument can be made for a negative relationship of venture maturity and new business contacts generated. More mature ventures can be considered to be more likely to already have a large network, making it less necessary for them to generate many new such relationships. Rather, it could be argued that they can rely on their tried and tested partners.

The second, more remarkable finding of this study is that evidence for a fit argument of entrepreneurial networking behavior to venture maturity is provided. It was shown that the effectiveness of using referrals when growing one's entrepreneurial business network is dependent on the maturity of the focal venture in that referrals have been shown to be more effective to generate new business contacts at a late maturity stage compared to early stage ventures. Following, entrepreneurs have been shown to be able to increase the effectiveness of their search for new business contacts by matching networking behavior to their venture's maturity, meaning that founders of mature ventures are found to be best advised to rely on referrals while their counterparts in immature businesses are better served with relying less on referrals. By providing support for this fit argument, this paper builds on the work of Vissa (2012) to establish a better understanding of the ego-level antecedents of network dynamics in entrepreneurship that is currently lacking in the existing entrepreneurial network dynamics literature (e.g. Hite & Hesterly, 2001; Larson & Starr, 1993). In doing so, this study shows that a one-size-fits-all approach regarding the choice of networking behavior does not fit across venture maturity levels. Rather, a fitted approach is needed that distinguishes between best practices for early stage entrepreneurs and their late stage counterparts.

A third contribution of this thesis is presented through the qualitative insights generated from the supplementary interviews, conducted to enrich the discussion of the quantitative findings. These qualitative insights provide an understanding of the underlying behavioral and motivational antecedents of exhibited entrepreneur behavior. As can be seen from the distribution of respondents in Figure 2, all venture maturity – reliance on referrals combinations were observed in this study's sample. Moreover, no clear preference towards the fitted quadrants, those shown to be most effective, i.e. high venture maturity – high reliance on referrals and low venture maturity – low reliance on referrals, was evident. The insights from the qualitative interviews suggest a potential explanation for this unfitted behavior. Specifically, entrepreneurs might value other aspects about their network more than size. One example is that entrepreneurs might focus more on the quality of their business relationships than the number of such relationships. In this case, the screening and reputational governing functions of a referee might be preferred over having a larger network, even at an early stage of the venture. For example, one interviewed entrepreneur stated that she wanted to do business with people that had similar values and beliefs to her own. Relying on referrals also at the outset of her venture might have helped her in screening potential contacts according to these criteria. A further possible explanation for the discrepancy between the behavior-maturity fit this study suggests and the behavior exhibited by entrepreneurs is the notion of rigidity of behavior (Schultz & Searleman, 2002), meaning that people are likely to continue to exhibit behavior that has proven to be successful in the past. Hence, entrepreneurs that have been successful in generating new business relationships with one specific type of networking behavior in the past can be considered to be unlikely to change that behavior in the future. This conception is also supported by research pointing towards the effects of inertia in network development (Kim et al., 2006). Moreover, this notion was also reflected by the answers in the qualitative interviews. Respondents claimed that while they were occasionally contacting potential contacts directly, they have always preferred using referrals whenever possible. While the interviewed entrepreneurs were running more mature businesses, they did not newly adopt this behavior but also used it when their business was at an earlier stage. Furthermore, interviewees reported a certain anxiety that was associated with cold contacting potential targets. While the quantitative findings show that many early stage entrepreneurs exhibit a low level of reliance on referrals, overcoming the anxiety associated with this behavior might even increase the number of entrepreneurs who embrace such behavior and, thus, act in line with the fit argument brought forward by the results of this thesis. A further behavioral explanation for the mismatch of exhibited entrepreneur behavior and the best practices suggested in this study might be connected to the notion of bounded rationality (Simon, 1972). More specifically, entrepreneurs might not be able to accurately evaluate the networking behaviors they are employing. In fact, it could be argued that entrepreneurs are more likely to remember the instances in which their networking behaviors have led to success than those instances where they were not successful. Following, entrepreneurs might evaluate their behavior inaccurately, as successes will disproportionately influence their judgement. This might lead entrepreneurs to stick to a given networking behavior, although a different behavior might be more appropriate.

Finally, this study's findings contribute to the understanding of the value of tie strength (Granovetter, 1973). Specifically, the results of this study and the evidence provided for a contingency perspective on entrepreneurial network agency affords insights into the creation and utilization of weak ties at an ego-level. Following the argument that weak ties are more likely than strong ties to be the source of novel information (Granovetter, 1973) and that those weak ties are most likely to create structural holes (Burt, 2004), it can be argued that this study's findings show how the creation of weak ties and structural holes can be supported through referrals. Adding to the idea that information flows to the ego through bridging ties (Granovetter, 1973), the arguments of this study suggest that bridging ties are not limited to providing information to the ego, but can also connect the ego to alters in their network through a referral. Thereby, even wider structural holes (Burt, 2004) are created in the ego's network, potentially leading to "good ideas" (Burt, 2004) and the generation of new business relationships, as the results of this study suggest.

6.2 Limitations and Future Research

The contributions of this thesis should be seen in light of its limitations. First, the sample in this study was drawn from people stating "founder" or "co-founder" as their business title on the professional networking platform LinkedIn. This procedure can potentially present drawbacks for the research design. Firstly, only searching for English business titles might exclude entrepreneurs that report their business title in a local language. Secondly, the search for potential respondents was administered using my personal LinkedIn account. Based on the setup of the LinkedIn platform, people with whom the searcher already has mutual connections or similarities, such as nationality or current locale, are listed first in search results. These drawbacks of the sample selection process can potentially limit the randomness of the sample. However, it can be reasoned that entrepreneurs are generally similar across national boundaries (Brandstätter, 1997). This argument is further supported by the robustness tests in the quantitative study of this research, showing that country effects were not significant when tested together with reliance on referrals and venture maturity. Moreover, relating the findings of this study to those of Vissa (2012) shows that his test results, based on a purely Indian sample, were replicable with a predominantly Western sample. Hence, it can be argued that non-randomness was not a significant issue in this research. To validate the results of this study, future research could replicate this research using a broader, even more diverse sample.

Second, with a response rate of around 46 per cent, nonresponse bias (Armstrong & Overton, 1977) might be limiting the results of this study. Respondents that did not answer to the survey could potentially differ from those who answered, limiting the applicability of this study's findings to the general population of entrepreneurs. However, the exact topic of the research was not known to respondents. Participants only knew that the study was concerned with entrepreneurial networking behavior, but did not know about the exact focus of the study, such as the use and effectiveness of referrals at different stages of venture maturity. Hence, it can be argued that there is little reason to suggest that entrepreneurs who did not respond to the survey should significantly differ from those who did.

Third, the research design employed self-reported scores for both explanatory variables in this study, i.e. *reliance on referrals* and *venture maturity*, to overcome the need for multiple measurement points. This could potentially subject the study results to self-report bias (Donaldson & Grant-

Vallone, 2002). This can cause various problems. First of all, it has to be assumed that respondents truthfully respond to the questionnaire. While this assumption might not hold universally, it can be argued that in this research, respondents had little reason to deliberately report wrong answers. The questionnaire was administered anonymously, not linking responses to particular entrepreneurs. Further, for the explanatory variables, no “good” or “bad” answers existed that would lead respondents to provide wrong answers to appear better or because they felt that a certain answer was more desirable. The second potential drawback a self-report bias poses are possible problems in understanding certain questions. This could result from the phrasing of questions or be based on the fact that the questionnaire was administered in English, not the native language of the majority of respondents. The existence of misunderstandings of questions cannot be ruled out completely. However, it can be argued that if such misunderstandings occurred, there is little reason to believe that they did so systematically. Random errors due to misunderstandings, should, therefore, not affect the validity of the research results. Moreover, the main effect results of this study confirmed those of Vissa (2012), whose study did not rely on self-report. This provides some evidence that self-report bias was not a significant problem in this study and makes a case for the research design employed, as it allows for a larger sample, providing more statistical power. Future research can further validate this approach, adding credibility to a research design that can potentially facilitate future research in the field of network dynamics.

Fourth, while the findings of this study provide evidence for a contingency approach to entrepreneurial network agency, it does so relating to the creation of new business contacts for a firm. The need for adjustments of networking behavior during the development of a venture might extend beyond the goal of growing one’s network by adding new business relationships. The literature has identified the need for a relational mix (Lechner et al., 2006) of different networks for new businesses to succeed. Further, it has been found that founder networks change from being socially embedded to being more task-oriented and professional (Hite & Hesterly, 2001; Larson & Starr, 1993). Following, a fit argument, such as the one proposed in this study, might also be important when trying to cater to network needs other than network size. Building on the findings of this thesis, further research is needed to investigate such relationships.

Finally, while this paper provides valuable insights into the behavioral and motivational antecedents of entrepreneurial networking behavior through the inclusion of qualitative interviews to enhance the discussion, the scope of these interviews was limited and the results not quantifiable. The insights gathered provide valuable first insights into those underlying reasons for entrepreneur behavior. However, more research is needed to fully understand these behavioral influences. Future research could include behavioral preferences and motivations in a quantitative study to provide more insightful and robust results, thereby enhancing the understanding of the reasons of the networking behavior exhibited by entrepreneurs.

6.3 Practical Implications

For practitioners, the findings of this paper can be very interesting. As shown in this study, the practices exhibited by entrepreneurs are not necessarily the same as those identified in the quantitative study as most effective to create new business relationships. Specifically, it was found that there was little to no discernible connection between the maturity of a venture and the level of reliance on referrals exhibited by entrepreneurs. The fact that entrepreneurs do not seem to consistently employ the networking behaviors that are suggested by the results of this thesis to be best fitted to the maturity of their venture can have two reasons.

First, as discussed in the theoretical contributions part of this study, entrepreneurs might prioritize other aspects of their network over network size. These other aspects, for example the nature of the business relationships established or the values and beliefs of potential business partners, might be facilitated by other networking behaviors than those that facilitate network growth through the addition of new business contacts.

Second, it could be the case that practitioners are, in fact, striving to enhance the size of their business network through the creation of new business contacts, but are unaware of the implications their networking behavior has on achieving this goal. The discussion on the theoretical contributions of this study's findings highlights that there might be various behavioral reasons for this potential misfit. In particular, it is discussed that entrepreneurs might be subjected to rigidity of behavior, anxiety towards cold contacting potential targets and subjected to bounded rationality when evaluating their current behavior. These behavioral antecedents might lead entrepreneurs to exhibit networking behaviors that are suboptimal for the goal of creating new business contacts. Hence, awareness of these behavioral limitations can be very valuable for entrepreneurs as it will allow them to make more informed choices about the networking modes they employ. Following, entrepreneurs that want to grow their business network can benefit from the findings of this study, as it provides evidence for a fit approach regarding the optimal level of reliance on referrals depending on the maturity level of the focal venture. Consequently, entrepreneurs will be able to match their networking behavior to the maturity level of their company, allowing them to increase the number of new business contacts they generate. More specifically, the findings of this study can encourage early stage entrepreneurs to invest more time in cold contacting potential targets to grow their network as fast as possible and generate many, potentially weak, ties that can become the sources of valuable referrals as the focal entrepreneur's business matures. Late stage entrepreneurs will find that they will be most efficient to generate new business contacts by relying on the valuable referrals they receive from their existing network. At this stage, they are more likely to receive referrals from weak ties, making those referrals more likely to be very valuable to their business.

Concluding, the findings of this study have important implications for practitioners as they present evidence for best practices in entrepreneurial networking that can facilitate the generation of new business contacts. Employing a fitted networking approach by relying less on referrals at an early maturity stage and increasing this reliance on referrals as the venture matures will allow entrepreneurs looking to generate more business contacts to use their networking time most effectively.

7 Conclusion

This paper has introduced a contingency approach to entrepreneurial network agency. Thereby, it has been shown that the effect of relying on referrals, i.e. introductions from an existing contact to a potential target contact, on the count of new business contacts generated by an entrepreneur is moderated by the maturity of the focal venture. More specifically, entrepreneurs of more mature ventures, as measured by their stage in the venture life cycle (Blank, 2007; Marmer et al., 2011), face a less negative effect of reliance on referrals on the number of new business relationships established than their counterparts in immature businesses. Entrepreneurs with less mature firms are argued to be better served by contacting potential targets directly, due to their need to create weak ties (Granovetter, 1973), which can potentially become valuable business partners or can link the focal entrepreneur to potential targets. Referrals from strong ties are argued to be less likely to lead to valuable new business contacts, making it less desirable for early stage entrepreneurs to rely heavily on such referrals. Founders of mature ventures, on the other hand, are argued to benefit from using referrals, as they are less subjected to the costs of referrals, such as a limited search pool and the inhibiting effect of the reputational governing function of the referee. Specifically, later stage entrepreneurs will be able to rely on referrals from a vast network of weak ties, affording them with a large pool of potential targets. Further, the power asymmetry in the entrepreneur-target relationship is argued to be lower for more mature ventures, reducing the ability of the target to exploit the focal entrepreneur in negotiations. Therefore, the existence of a referee in the entrepreneur-target relationship will not make as much of a difference to the action set of both entrepreneur and target. Moreover, entrepreneurs of mature ventures are argued to benefit from the screening mechanism that relying on referrals affords, as they will spend their limited time with a preselected pool of potential targets that their existing partners have already identified to be a potential fit for the focal entrepreneur. Following, entrepreneurs are argued to be able to increase their effectiveness and efficiency in creating new business relationships by employing the level of reliance on referrals that is best suited to the maturity of their venture.

The contingency approach of this study builds on the existing work in entrepreneurial network agency (e.g. Gulati & Srivastava, 2014; Vissa, 2011, 2012) by providing evidence for a fit argument of entrepreneurial agency in network dynamics. The findings suggest that the changing network needs across various levels of venture maturity (e.g. Hite & Hesterly, 2001; Larson & Starr, 1993; Lechner et al., 2006) are not necessarily best served by a single networking mode, i.e. contacting targets directly. Rather, it is shown that the effectiveness of different networking modes (high versus low level of reliance on referrals) varies depending on the level of maturity of a firm. This understanding can also serve as a starting point for further research on entrepreneurial network agency, potentially investigating different outcome variables (other than new business contacts added) and maturity contingent effects on these.

The fit argument that is proposed in this study and supported by the findings of this research has important implications for entrepreneurs. Through adapting their networking behavior to the maturity of their venture, entrepreneurs are able to increase the number of new business contacts they generate. This insight is especially important in light of the fact that such a behavior – maturity fit is currently not achieved by many entrepreneurs. The qualitative interviews conducted to enlighten the discussion of the quantitative results suggest that there might exist several behavioral reasons for the fact that entrepreneurs currently do not seem to deliberately adapt their networking behavior to the maturity of their venture. Awareness of these behavioral antecedents will help entrepreneurs to make more informed decisions about the networking behaviors they employ.

Concluding, this research has made a contribution to the theorizing on entrepreneurial network agency through the introduction of a contingency approach and can serve as the starting point for further research investigating contingency effects in this field. Further, the findings of this study can prove to be insightful for practicing entrepreneurs, allowing them to potentially alter their networking behaviors so as to increase their networking effectiveness by generating more new business relationships.

8 References

Ahuja, G., Soda, G., & Zaheer, A. (2012). The genesis and dynamics of organizational networks. *Organization Science*, *23*(2), 434–448. http://doi.org/10.1287/orsc.1110.0695

Aiken, L. S., & West, S. G. (1991). *Multiple Regression: Testing and Interpreting Interactions* (1st ed.). Thousand Oaks, California: Sage Publications.

Aldrich, H. E., Rosen, B., & Woodward, W. (1987). The impact of social networks on business foundings and profit: A longitudinal study. In *Frontiers of Entrepreneurship Research* (pp. 154–168). Babson Collage.

Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, *14*(3), 396–402. http://doi.org/10.2307/3150783

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. http://doi.org/10.1177/014920639101700108

Bell, G. G., & Zaheer, A. (2007). Geography, networks, and knowledge flow. *Organization Science*, *18*(6), 955–972. http://doi.org/10.1287/orsc.1070.0308

Ber, H., & Yafeh, Y. (2004). Can venture capital funds pick winners? Evidence from pre-IPO survival rates and post-IPO performance. *Israel Economic Review*, *5*(1), 23–46.

Birley, S. (1985). The role of networks in the entrepreneurial process. *Journal of Business Venturing*, *1*(1), 107–117. http://doi.org/10.1016/0883-9026(85)90010-2

Blank, S. G. (2007). *The four steps to the epiphany* (2nd ed.). K&S Ranch.

Blomberg, J., Giacomi, J., Mosher, A., & Swenton-Wall, P. (1993). Ethnographic field methods and their relation to design. In D. Schuler & Namioka Aki (Eds.), *Participatory Design: Principles and Practices* (1st ed., pp. 123–155). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Bonacich, P. (1987). Power and centrality: A family of measures. *American Journal of Sociology*, *92*(5), 1170–1182. http://doi.org/10.1086/228631

Borgatti, S. P., & Halgin, D. S. (2011). On network theory. *Organization Science*, *22*(5), 1168–1181. http://doi.org/10.1287/orsc.1110.0641

Brajkovich, L. F. (1994). Sources of social structure in a start-up organization: Work networks, work activities, and job status. *Social Networks*, *16*(3), 191–212. http://doi.org/10.1016/0378-8733(94)90005-1

Brandstätter, H. (1997). Becoming an entrepreneur — A question of personality structure? *Journal of Economic Psychology*, *18*(2), 157–177. http://doi.org/10.1016/S0167-4870(97)00003-2

Brüderl, J., & Preisendörfer, P. (1998). Network support and the success of newly founded businesses. *Small Business Economics*, *10*(3), 213–225. http://doi.org/10.1023/A:1007997102930

Burt, R. S. (1995). *Structural Holes: The Social Structure of Competition* (1st ed.). Cambridge, Massachusetts: Harvard University Press. http://doi.org/10.2307/2234645

Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology*, *110*(2), 349–399. http://doi.org/10.1086/421787

Burt, R. S., & Knez, M. (1995). Kinds of third-party effects on trust. *Rationality and Society*, *7*(3), 255–292. http://doi.org/10.1177/1043463195007003003

Butler, J. E., & Hansen, G. S. (1991). Network evolution, entrepreneurial success, and regional development. *Entrepreneurship & Regional Development*, *3*(1), 1–16. http://doi.org/10.1080/08985629100000001

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*, S95–S120. http://doi.org/10.1086/228943

Coleman, J. S. (1994). *Foundations of Social Theory* (1st ed.). Cambridge, Massachusetts: Harvard University Press. http://doi.org/10.2307/2579680

Cook, K. S., & Emerson, R. M. (1978). Power, equity and commitment in exchange networks. *American Sociological Review*, *43*(5), 721–739. http://doi.org/10.2307/2094546

Cooper, B., & Vlaskovitz, P. (2010). *Entrepreneur's Guide to Customer Development* (1st ed.). Cooper-Vlaskovits. http://doi.org/10.1017/CBO9781107415324.004

Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology*, *17*(2), 245–260. http://doi.org/10.1023/A:1019637632584

Dwyer, F. R., & Walker Jr, O. C. (1981). Bargaining in an asymmetrical power structure. *Journal of Marketing*, *45*(1), 104–115. http://doi.org/10.2307/1251724

Elfring, T., & Hulsink, W. (2003). Networks in entrepreneurship: The case of high-technology firms. *Small Business Economics*, *21*(4), 409–422. http://doi.org/10.1023/A:1026180418357

Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, *2*, 335–362. http://doi.org/10.2307/2946096

Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, *103*(4), 962–1023. http://doi.org/10.1086/231294

Freeman, J. (1999). Venture capital as an economy of time. In *Corporate Social Capital and Liability* (pp. 460–479). Springer US.

Freeman, J., Carroll, G. R., & Hannan, M. (1983). The liability of newness: Age dependence in oranization death rates. *American Sociological Review*, *45*(5), 692–710.

Freeman, L. C. (1978). Centrality in social networks: Conceptual clarification. *Social Networks*, *1*(3), 215–239. http://doi.org/10.1016/0378-8733(78)90021-7

Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, *78*(6), 1360–1380. http://doi.org/10.1086/225469

Granovetter, M. S. (1983). The strength of weak ties: A network theory revisited. *Sociological Theory*, *1*, 201–233. http://doi.org/10.2307/202051

Greve, A., & Salaff, J. W. (2003). Social networks and entrepreneurship. *Entrepreneurship: Theory and Practice: Theory and Practice*, *28*(1), 1–22. http://doi.org/10.1111/1540-8520.00029

Gulati, R. (1995). Social structure and alliance formation patterns : A longitudinal analysis. *Administrative Science Quarterly*, *40*(4), 619–652.

Gulati, R., & Gargiulo, M. (1999). Where do interorganizational networks come from? *American Journal of Sociology*, *104*(5), 1439–1493. http://doi.org/10.1086/210179

Gulati, R., & Srivastava, S. B. (2014). Bringing agency back into network research: Constrained agency and network action. In D. J. Brass, G. Labianca, A. Mehra, D. S. Halgin, & S. P. Borgatti (Eds.), *Research in the Sociology of Organizations* (Vol. 40, pp. 73–93). Emerald Group Publishing Limited. http://doi.org/10.1108/S0733-558X(2014)0000040004

Hansen, E. L. (1995). Entrepreneurial networks and new organization growth. *Entrepreneurship: Theory and Practice Theory & Practice*, *19*(4), 7–20.

Higgins, M. C., & Gulati, R. (2003). Getting off to a good start: The upper echelon affiliations underwriter prestige. *Organization Science*, *14*(3), 244–263. http://doi.org/10.1287/orsc.14.3.244.15160

Hite, J. M. (2005). Evolutionary processes and paths of relationally embedded network ties in emerging entrepreneurial firms. *Entrepreneurship: Theory and Practice*, *29*(1), 113–144. http://doi.org/10.1111/j.1540-6520.2005.00072.x

Hite, J. M., & Hesterly, W. S. (2001). The evolution of firm networks: From emergence to early growth of the firm. *Strategic Management Journal*, *22*(3), 275–286. http://doi.org/10.1002/smj.156

Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal of Business Venturing*, *18*(2), 165–187. http://doi.org/10.1016/S0883-9026(02)00081-2

Hsu, D. H. (2004). What do entrepreneurs pay for venture capital affiliation? *Journal of Finance*, *59*(4), 1805–1844. http://doi.org/10.1111/j.1540-6261.2004.00680.x

Jack, S. L. (2005). The role, use and activation of strong and weak network ties: A qualitative analysis. *Journal of Management Studies*. http://doi.org/10.1111/j.1467-6486.2005.00540.x

Jack, S. L., Dodd, S. D., & Anderson, A. R. (2004). Social structures and entrepreneurial networks: The strength of strong ties. *International Journal of Entrepreneurship and Innovation*, *5*(2), 107–120. http://doi.org/10.5367/000000004773863264

Jackson, M. O., & Rogers, B. W. (2007). Meeting strangers and friends of friends: How random are social networks? *American Economic Review*, *97*(3), 890–915. http://doi.org/10.1257/aer.97.3.890

Karamon, J., Matsuo, Y., Yamamoto, H., & Ishizuka, M. (2007). Generating social network features for link-based classification. In *Knowledge Discovery in Databases: PKDD 2007, Proceedings* (Vol. 4702, pp. 127–139). Springer Berlin Heidelberg. http://doi.org/10.1007/978-3-540-74976-9_15

Kazanjian, R. K., & Drazin, R. (1990). A stage-contingent model of design and growth for technology based new ventures. *Journal of Business Venturing*, *5*(3), 137–150. http://doi.org/10.1016/0883-9026(90)90028-R

Kim, T.-Y., Hongseok, O. H., & Swaminathan, A. (2006). Framing interorganizational network change: A network inertia perspective. *Academy of Management Review*, *31*(3), 704–720. http://doi.org/10.1007/11774303_74

Krackhardt, D. (1990). Assessing the political landscape - Structure, cognition, and power in organizations. *Administrative Science Quarterly*, *35*(2), 342–369. http://doi.org/doi:10.2307/2393394

Krackhardt, D. (1992). The strength of strong ties: The importance of philos in organizations. In N. Nohria & R. G. Eccles (Eds.), *Networks and Organizations: Structure, Form, and Action* (1st ed., pp. 216–239). Boston, Massachusetts: Harvard Business School Press. http://doi.org/10.1177/1043463103154001

Krackhardt, D., & Porter, L. W. (1985). When friends leave: A structural analysis of the relationship between turnover and stayers' attitudes. *Administrative Science Quarterly*, *30*(2), 242–261. http://doi.org/10.2307/2393107

Krackhardt, D., & Porter, L. W. (1986). The snowball effect: Turnover embedded in communication networks. *Journal of Applied Psychology*, *71*(1), 50–55. http://doi.org/10.1037/0021-9010.71.1.50

Krackhardt, D., & Stern, R. N. (1988). Informal networks and organizational crises: An experimental simulation. *Social Psychology Quarterly*, *51*(2), 123–140. http://doi.org/10.2307/2786835

Larson, A. (1992). Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly*, *37*(1), 76–104. http://doi.org/10.2307/2393534

Larson, A., & Starr, J. A. (1993). A network model of organization formation. *Entrepreneurship: Theory and Practice*, *17*(2), 5–16.

Laumann, E. O., Marsden, P. V., & Prensky, D. (1983). The boundary specification problem in network analysis. In R. S. Burt & M. J. Minor (Eds.), *Applied Network Analysis: A Methodological Introduction* (pp. 18–34). Sage Publications.

Lechner, C., & Dowling, M. (2003). Firm networks: External relationships as sources for the growth and competitiveness of entrepreneurial firms. *Entrepreneurship & Regional Development*, *15*(1), 1–26. http://doi.org/10.1080/08985620210159220

Lechner, C., Dowling, M., & Welpe, I. (2006). Firm networks and firm development: The role of the relational mix. *Journal of Business Venturing*, *21*(4), 514–540. http://doi.org/10.1016/j.jbusvent.2005.02.004

Light, I. (1984). Immigrant and ethic enterprise in North America. *Ethnic & Racial Studies*, *7*(2), 195–216.

Lorenzoni, G., & Lipparini, A. (1999). The leveraging of interfirm relationships as a distinctive organizational capability : A longitudinal study. *Strategic Management Journal*, *20*(4), 317–338. http://doi.org/10.1002/(SICI)1097-0266(199904)20:4<317::AID-SMJ28>3.0.CO;2-3

Mariotti, F., & Delbridge, R. (2012). Overcoming network overload and redundancy in interorganizational networks: The roles of potential and latent ties. *Oranization Science*, *23*(2), 511–528. http://doi.org/10.1287/orsc.1100.0634

Markovsky, B., Willer, D., & Patton, T. (1988). Power relations in exchange networks. *American Sociological Review*, *53*(2), 220–236. http://doi.org/10.2307/2095689

Marmer, M., Herrmann, B. L., Dogrultan, E., Berman, R., Eesley, C., & Blank, S. (2011). *Startup Genome Report Extra on Premature Scaling*.

Marsden, P. V. (1983). Restricted access in networks and models of power. *American Journal of Sociology*, *88*(4), 686–717. http://doi.org/10.1086/227729

McEvily, B., & Zaheer, A. (1999). Bridging ties: A source of firm heterogeneity in competitive capabilities. *Strategic Management Journal*, *20*(12), 1133–1156. http://doi.org/10.1002/(SICI)1097-0266(199912)20:12<1133::AID-SMJ74>3.0.CO;2-7

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in Social networks. *Annual Review of Sociology*, *27*, 415–444. http://doi.org/10.1146/annurev.soc.27.1.415

Missen, M. M. S., Boughanem, M., & Gaume, B. (2008). The small world of web network graphs. In D. M. A. Hussain (Ed.), *Wireless Networks, Information Processing and Systems* (pp. 133–145). Springer Berlin Heidelberg. http://doi.org/10.1007/978-3-540-89853-5-16

Mueller, R. M., & Thoring, K. (2012). Design thinking vs lean startup: A comparison of two userdriven innovation strategies. *Proceedings of 2012 International Design Management Research Conference*, 151–161. http://doi.org/10.13140/2.1.1834.4647

National Venture Capital Association. (2016). $58.8 billion in venture capital invested across U.S. in 2015, according to the MoneyTree report. Retrieved April 20, 2016, from http://nvca.org/pressreleases/58-8-billion-in-venture-capital-invested-across-u-s-in-2015-according-to-the-moneytree-report-2/

Nohria, Nitin, Eccles, R. (1994). *Networks and organizations: structure, form and action* (1st ed.). Boston, Massechusetts: Harvard Business Review Press. http://doi.org/10.2307/2075362

Obstfeld, D. (2005). Social networks, the tertius lungens orientation, and involvement in innovation. *Administrative Science Quarterly*, *50*(1), 100–130. http://doi.org/10.2189/asqu.2005.50.1.100

Rivera, M. T., Soderstrom, S. B., & Uzzi, B. (2010). Dynamics of dyads in social networks: Assortative, relational, and proximity mechanisms. *Annual Review of Sociology*, *36*, 91–115. http://doi.org/10.1146/annurev.soc.34.040507.134743

Schultz, P. W., & Searleman, A. (2002). Rigidity of thought and behavior: 100 years of research. *Genetic, Social, and General Psychology Monographs*, *128*(2), 165–209.

Shane, S., & Cable, D. (2002). Network ties, reputation, and the financing of new ventures. *Management Science*, *48*(3), 364–381. http://doi.org/10.1287/mnsc.48.3.364.7731

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, *25*(1), 217–226. http://doi.org/10.1007/978-3-540-48543-8_8

Shipilov, A. V., & Li, S. X. (2012). The missing link: The effect of customers on the formation of relationships among producers in the multiplex triads. *Organization Science*, *23*(2), 472–491. http://doi.org/10.1287/orsc.1100.0568

Simon, H. (1972). Theories of Bounded Rationality. In C. B. McGuire & R. Radner (Eds.), *Decision and Organization* (1st ed., pp. 161–176). North-Holland Publishing Company.

Singh, R., Hills, G., Lumpkin, G. T., & Hybels, R. (1999). The entrepreneurial opportunity recognition process: Examining the role of self-perceived alertness and social networks. In *Academy of Management Proceedings* (pp. G1–G6). Academy of Management. http://doi.org/10.5465/APBPP.2000.5535153

Slotte-Kock, S., & Coviello, N. (2010). Entrepreneurship research on network processes: A review and ways forward. *Entrepreneurship: Theory and Practice*, *34*(1), 31–57. http://doi.org/10.1111/j.1540-6520.2009.00311.x

Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. (2001). Social networks and the performance of individuals and groups. *Academy of Management Journal*, *44*(2), 316–325. http://doi.org/10.2307/3069458

Starr, J. A., & Macmillan, I. C. (1990). Resource cooptation via social contracting: Resource acquisition strategies for new ventures. *Strategic Management Journal*, *11*, 79–92. http://doi.org/10.2307/2486671

Stearns, T. M. (1996). Strategic alliances and performance of high technology new firms. In *Frontiers of Entrepreneurship Research* (pp. 268–281).

Stuart, T., Hoang, H., & Hybels, R. (1999). Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly*, *44*(2), 315–349. http://doi.org/10.2307/2666998

Vissa, B. (2011). A matching theory of entrepreneurs' tie formation intentions and initiation of economic exchange. *Academy of Management Journal*, *54*(1), 137–158. http://doi.org/10.5465/AMJ.2011.59215084

Vissa, B. (2012). Agency in action: Entrepreneurs' networking style and initiation of economic exchange. *Organization Science*, *23*(2), 492–510. http://doi.org/10.1287/orsc.1100.0567

Vissa, B., & Bhagavatula, S. (2012). The causes and consequences of churn in entrepreneurs' personal networks. *Strategic Entrepreneurship Journal*, *6*(3), 273–289. http://doi.org/10.1002/sej.1138

Zaheer, A., Gözübüyük, R., & Milanov, H. (2010). It's the connections: The network perspective in interorganizational research. *Academy of Management Perspectives*, *24*(1), 62–77. http://doi.org/10.5465/AMP.2010.50304417

Zhao, L., & Aram, J. D. (1995). Networking and growth of young technology-intensive ventures in China. *Journal of Business Venturing*, *10*(5), 349–370. http://doi.org/10.1016/0883-9026(95)00039-B

Zimmer, C., & Aldrich, H. (1987). Resource mobilization through ethnic networks. Kinship and friendship ties of shopkeepers in England. *Sociological Perspectives*, *30*(4), 422–445. http://doi.org/10.2307/1389212

Appendix

A. Items Reliance on Referrals Scale

To elicit respondents' levels of reliance on referrals in their networking behavior, entrepreneurs reported to which extent the following statements applied to their networking behavior one year prior to the point of inquiry. Respondents indicated their agreement to these statements on a 5-point Likert scale including "totally disagree", "disagree", "neither agree nor disagree", "agree" and "totally agree". Items R4R and R5R are reversed.

Item	**Statement**
R1	I find it much easier to find new potential business contacts through referrals from people within my existing network
R2	Approaching people from outside of my network to establish business relations is not very fruitful
R3	I prefer to rely on referrals from people within my existing network to make new business contacts
R4R	I frequently approach potential business contacts directly, even though I have no relation to them and have not been referred to them

R5R	To attain new business contacts, I predominantly address people from outside my network directly without any referral

B. Items Venture Maturity Scale

To investigate the level of maturity of the respondents' businesses, participants were asked for each item to pick the statement that best described the state of their business one year prior to the point of inquiry. Answer options progressed in the described maturity level, based on the venture life cycle (Blank, 2007; Marmer et al., 2011). Hence, statement 1.) was always associated with stage 1 in the venture life cycle, statement 2.) with stage 2 and so forth.

Item	**Answer Choices**
S1	1.) We have identified a problem that our company can solve
	2.) We have validated that customers are really interested in our offering
	3.) We are currently scaling up marketing
	4.) We are currently professionalizing our company by establishing departments and hiring top personnel for the management
	5.) We have been operating profitably for a while and are maturing as a company

S2	1.) We have not yet gained our first customers
	2.) We have onboarded our first customers
	3.) We are gathering real demand with a lot of customers now
	4.) We are improving our execution to keep up with demand
	5.) We have successfully developed our market position and have been operating maturely
S3	1.) We have found a meaningful problem that potential customers are having
	2.) Customers are really interested in our offering
	3.) We are currently refining our business model based on customer feedback
	4.) We are growing rapidly to keep up with demand
	5.) We are not growing as strongly anymore and have matured as a company

S4	1.) Potential customers seem to be interested in our solution to their problem
	2.) Customers are willing to spend money on our offerings. We are getting the first customers on board
	3.) We are improving our customer acquisition processes
	4.) We are scaling up the business and are employing executive hires
	5.) We have operated successfully for a couple of years and have developed an established market position

C. Memory Minutes Interview Number 1

Due to the fact that no recording was possible in this first meeting, the meeting proceedings are provided in the form of memory minutes.

Interviewer: Daniel Scholz, researcher

Interviewee: Co-Founder, CEO

Interview Setting: At the office of the company in Copenhagen, Denmark

Interviewee Background:

- She has worked in the music industry before for labels but also in the technology sphere
- She has started another music startup prior to her current project
- Took part in two accelerator programs, Startup Bootcamp and Microsoft Ventures

Company Information:

- The company developed a music app that creates curated playlists based on user preferences as taken from Facebook likes, activities, current location etc.
- The service is subscription based with a monthly fee
- The company is also working on selling a white-labeled product, i.e. selling the product without branding and allowing customers, e.g. telecom providers, to brand the product using the customer's branding
- The company was founded in August 2014 (1.5 years ago)
- They are currently scaling up the business and have paying customers onboarded
- Revenues are currently covering costs but they are not yet turning a profit
- The company has 10 employees at the moment

Networking:

- Networking is done largely through referrals
- Accelerator programs provide her with a good network she can use to get referrals
- She drafts an introduction email for referees and provides them with further information material such as sales material so that they can forward that to the target
- She had one very important mentor who was able to refer her to many good contacts
- When going to fairs or conferences, she always books meetings in advance
- To her, the most important criterion for a target to agree to meet is a good product and strategy fit; Because of this she always researches targets carefully to find out, who could be a good fit
- She feels that contacting targets directly has become easier as her product and business developed
- She still prefers using referrals when available, because the chance of receiving an answer are much better. This has not changed since she started her company

D. Transcript Interview Number 2

Interviewer: Daniel Scholz, researcher

Interviewee: Co-Founder, CEO

Interview Setting: In a coffee area at the co-working space where the company is located

(Start of interview)

Interviewer: So, what is it exactly you are doing?

Interviewee: We help air passengers when their plane is delayed, canceled or overbooked. So when that happens you are entitled of up to 600€. The problem is that people do not know their rights and if they know their rights and write to an airline, that airline often claims that in this specific case no charge is applicable. When this happens and the airline refuses to pay, you should take this case to a court. By yourself.

Interviewer: Which is expensive.

Interviewee: Yeah. And you don't have the time. When you use us, we can get the compensation to you faster, because air carriers know us and they know we will take them to court.

Interviewer: And you take a percentage of the fee?

Interviewee: Yes, if we can get the compensation for you, we take 25%. If we cannot get compensation, it is free.

[…more elaboration on service]

Interviewer: When did you start your company?

Interviewee: in September 2014.

Interviewer: So you launched the website then?

Interviewee: Yeah that's when we launched the website. We did some cases before. We had friends who had problems and we saw that we could help them. And then it got more and more and at some point we thought that we have to make a company out of it. And now we have around 2,600 customers. And we get around 400 new customers each month.

Interviewer: I saw that you have been promoted on a number of websites like DR and Børsen and so on.

Interviewee: Exactly. We also just went to Djøf. And we are going to BT this Easter. We are getting a lot of press coverage. Journalists love the conflict between air carriers and passengers. It nearly concerns everyone. So that's what makes it interesting.

[…more elaboration on service]

Interviewer: If we talk about how you do networking, how do you do that?

Interviewee: If we start with business partners. We have a lot of friends. Philipp, my partner, had a case and he asked me whether I could help him. And then we knew that we couldn't do it all by ourselves so we asked Joe, who has a finance background and then we knew that if we wanted to scale it, we needed a sales person. That's all in my friends group. And we met another business partner who we met at CSE Entrepreneurship Day.

Interviewer: Do you do these networking events a lot?

Interviewee: No not really. There are some. I'll be there when I can.

Interviewer: Are you going to other events outside of CSE?

Interviewee: Sometimes. It's always good to have a drink. And I bring my business card every time. I am maybe doing that around once every second month.

Interviewer: Have you gotten any funding for your company?

Interviewee: No. We just grew organically with our own investment. If we could get outside funding, we would look into it, as it would help us to scale up. In terms of marketing etc. We are doing a lot already, but we could do more.

Interviewer: If you say you are growing organically, this also means that you are profitable?

Interviewee: Yes, we are profitable.

Interviewer: You said you have started with your friends group mostly. Has this behavior changed now that you have a more established company?

Interviewee: Oh yes. It is easier to appear interesting now. It's much easier to get in touch with people. In the startup environment, people sort of know us.

Interviewer: So you have a bit of a brand now?

Interviewee: Yes, exactly. What is also interesting is how we got our press coverage. We didn't know anyone in press before. We put out messages that we are hiring and so on. And a friend of a friend got asked who we are and they wanted to write about us and they got forwarded to me. And then it grew from there. Now they come by themselves, because they know that we are experts on the topic. Another article that we got in a newspaper was through a friend. I asked him about who we could contact to get in at the newspaper. And he told us who to contact and we reached out and stated my friend as a reference.

Interviewer: Would you say that this has been the main way to network for you to rely on friends and referrals from friends.

Interviewee: Yes. Our local brand is very important. We maybe have a friend group of around 1,000 people among the five partners. With a good brand, we have people who would like to work for us or get on board as a partner.

Interviewer: How many people are you actually?

Interviewee: We are five people full time and some interns. We are actually moving into a new place soon, outside of the co-working space. You should come to the opening party!

Interviewer: Sure. Thanks for the interview and for taking your time.

Interviewee: Of course. Any time.

(End of interview)

E. Transcript Interview Number 3

Interviewer: Daniel Scholz, researcher

Interviewee: Founder, CEO

Interview Setting: At meeting room in the company's office in Copenhagen, Denmark

(Start of interview)

Interviewer: So, first of all thanks for taking the time. It's really nice to get a first-hand insight into how you do networking as a founder. So first of all I would like to know what exactly you do at your company, how long you have been in business and so on.

Interviewee: Yeah so, officially I started my company in 2013.

Interviewer: Alright so that's around two and a half years ago?

Interviewee: Yeah, two and a half years. But I think it's always when I say that, people think oh you've been around for two and a half years. But the first year I was basically alone. I am the only founder in my company and I have been doing a lot of research and tried to make the first prototype. So the first year was really really slow and only after that we kicked things off and I hired my first employees. We launched the product last April so that's when we went from alpha and beta to the official product. So April last year is when we launched with our first retailer. Adjusted everything for a couple of month and from September on we really started to sell the product. So know we are really focusing on figuring out how to sell it best to customers. It's also a really interesting transition from product development to customer and sales development. So that's where we are now. If we talk about the product itself. Over the last years, the product really has changed a lot. When I started my company, my main goal was to resolve so-called sizing and fitting issues in e-commerce. I am a big fan of online shopping myself. And I know how frustrating it is for a customer to go online and try to pick the right size and when it doesn't fit you, you have to return it. But I also had an online shop so I could see how many returns online shops are having and how big of an impact it has on their business.

Interviewer: Oh, so you had your own online shop before?

Interviewee: Yeah, it wasn't a clothing online shop per se, but I was talking to a lot of other online shop retailers and I could see how much money they were spending on those returns.

Interviewer: How much is that?

Interviewee: Yeah on average, retailers are spending around 20 per cent of their revenues on those returns. If we talk about fashion retailers. Because if we talk about fashion stores, we are are not only talking about the returns, but items might be out of season or they might be damaged or worn when they are returned.

Interviewer: I can imagine that a lot of the returns have to be washed at least.

Interviewee: A lot of the time, customers will return something used or with stains. But for the retailer there is the question whether to invest the time to go after customers or do you try to keep a good face and be nice to the customer. Even if you refund, you have to pay payment providers. And the margins are really thin in e-commerce. So I started to think, how can we change that. My first idea was to make a B2C applications where customers could take a photo of themselves and we would try to measure them. What we found out was that customers felt that this was quite intimate and the measurements that online shops provide were found to be pretty inaccurate. So then we changed to a

B2B concept. So what we do now is trying to solve any sizing problems. We are providing sizing as a service, so our solution can be used on top of any other service or website.

Our main customers are retailers. Our main customers are in Denmark and the UK and we are looking into retailers in some emerging markets. And in these retailers you can choose us as a sizing option.

Interviewer: So when I look at a t-shirt I can see you as a sizing option?

Interviewee: Yeah, there will be two options for you. If you have used us before in some shop, we will already know your size. If you are a new customer, we will ask you two questions. We will ask you about your favorite item in that category and will ask the brand and size you have. And from that, our algorithm links to a database with many customers and it finds customers with a similar shopping behavior to you. And from that, we will find your size.

[… more elaboration regarding product]

Interviewee: So that's, I guess, very briefly what we do as a company.

Interviewer: Alright, so you have launched the product last April, how does your revenue model work?

Interviewee: We are taking a fixed fee per month from retailers, because margins are so slim, so we are not taking a percentage of sales.

[…more elaboration on product]

Interviewer: How are you doing sales wise?

Interviewee: We are still finding the right approach. We are launching new markets and are figuring out how the different markets across Europe work. We are working on finding out how to sell it best. We are seeing that online shops really like it. Now we are looking to really sell it to them and to make the sales cycle shorter. We are also figuring out how to sell best to different stakeholders. For business managers, it's a fairly easy sale. We tell them how much money they are saving by using it and they're convinced. We are now also working on building a reputation among IT people to be known as a reputable service provider that does not break their website. So that's what we are really working on at the moment.

Interviewer: I guess that will also be easier once you have more customers lined up.

Interviewee: Yeah totally, totally.

Interviewer: So if we come to speak about networking. You said you started alone and it was mainly product development in the first year. How do you do your networking? How do you find business partners or now customers? What do you do and how did that potentially change over the years?

Interviewee: So what I have noticed over the years is that I have become more structured. I think that comes from my personality, because I am a very structured person myself. And secondly, I am an introvert. I mean I like speaking to people but I need to know that I know exactly what it is about and that I have time to myself to recap after. So to be honest I am not a huge fan of big conferences or meet-ups. I don't believe that they work. Maybe they work for some people, but they do not work for me. Further, I also think that that comes from my age and my gender. I am 26 now and I was 23 when I started the company. And I am also a female in a male dominated industry. And I am not Danish. It can be challenging sometimes. I am not saying it is an obstacle, but it is one additional challenge. So it's harder for me if I go there not fully prepared. So what I do now is I follow a set of rules in terms of networking. I really prefer one-on-one meetings and coffee meetings. So when I see someone from my network or someone who knows someone. Some cool person. Not necessarily a client but maybe a cool designer and I want to get their feedback on our design or an investor. I write them an email or I ask someone to introduce me to them and I will say: hi can I buy a coffee or a beer; I'd like to talk to you about this and that because I think you are a knowledgeable person on the topic. So I write a short email and I think that that works really well. Usually people say sure lets catch up and then at the meeting we will have a really good conversation. So that's the first thing. I really prefer to do that. So when I have to go to a conference, I will scan the list of attendees two weeks before and will write direct messages to these people. Because I think you cannot just go there and grab a speaker or just chase someone. It's really tricky. I just don't want to go to a conference unprepared and hoping that something will happen and then go home frustrated because nothing happened.

I don't really like after parties. But I would prefer morning meetings or dinners. For me it's also very important to see what kind of people they are. To see whether they are good people or not. Because for me that is very important. Maybe I am a little idealistic, but I want to work with good people. So I always meet with them in settings where we can have an informal conversation.

Interviewer: So you can really get to know the person you are talking to. I guess that can also influence the working relationship?

Interviewee: Yeah totally. Especially I think it is important if I consider this person as a hire or as an investor. It's really important that we have that connection. Another thing that I am doing. Especially because I am an introvert, it can be challenging to start a conversation and don't know exactly what I should say or ask. So I am listening to a lot of podcasts. Some are about entrepreneurship and some are about general things. And those are the things that help me to start conversations. I met some of my investors like this because we had a mutual connection on some subject. At some point he asked whether I was staying longer at the event and I said "no I have to catch up on the daily show, because I missed it last week". And he was watching it as well so we talked about the daily show for half an hour and he invested in us above that. I think everyone wants to feel that you also care about them as a person.

Interviewer: You mentioned that you also search for people that could introduce you to new contacts. Is that something that you would prefer?

Interviewee: Yeah I always prefer to have an introduction. First of all, it really increases your chances to be visible to someone. I take it from myself. If I get an email from someone, I might answer. But if you lost me on the first line, I'll delete the email right away. I get around 150 emails every day. So it is easy to lose touch. But if they get an email from someone they know and that person is actually saying something nice about me, they will probably take their time. I think it is always better. It's also nice to see how a person would introduce you. Of course what I do, for example if I would ask you to introduce me to someone. We only met once, it's not like we are the best friends and I am not quite sure whether you are actually able to introduce me in the right way, so I will just send you small message saying "Hi could you introduce me to this and that person. You will find some information about me and my company below". So you can just copy-paste it. But if I know you, I would just ask you to connect me to someone and I would see how you introduce me. I think it's nice to see what people say about you and it is also a good way to see how people see you and whether they really know what you are doing. But generally, I think it's always good to have people to introduce you, because it also gives you more visibility.

Interviewer: So would you say that such introductions were more important in the beginning when you didn't have customers and were only just building your product? Has it become easier to approach people directly? Or would you say that it has stayed the same?

Interviewee: I would say that I have become a little bit bolder myself when approaching people. Before, I was scared to be rejected and now I am just sending an email and am not afraid of following up. But also now we have investors, we have advisors, I meet more people. So our network also grows. So it's also easier for me now to get introductions, because someone will mention someone and I can say "Hey would you introduce me to that person?". I am also valuing social capital more than before. I am still evaluating every event that I am invited to, even though people say that I should go and network. I am really thinking about what value it will bring to my business. I feel though that a certain social capital really helps. You build this reputation and people will know who to go to if they are looking for someone like you. It also goes step by step. If you build a relationship with one person and have proven to be a good person and to be knowledgeable it goes on from there. Sometimes I also get introductions from my investors without asking for them.

Interviewer: That's nice.

Interviewee: Yeah they say "Hey I think you should talk to that person". So that's really nice and I think talking to people in the same industry really gives you an understanding of the dos and don'ts. So I am getting a little more into the social capital concept.

Interviewer: So networking is becoming more important for you?

Interviewee: Yeah. But I still think that you have to be really picky and don't go to every event. There is people that are on every event. But for me it really depends on the type of event. If it is about e-commerce, I really want to be there and be as accessible as possible. But I will not be at those start-up or industry events. I also need to focus on my business and the demands there so I have to be really picky with my time and how I spend it. So I need to be more focused in a networking sense.

Interviewer: You also mentioned that you are getting more structured about networking. How did you do it before?

Interviewee: So before, if I got introduced to someone, I would meet that person and be done with it. Now I am really following up on meetings and will also inform the person who referred me on how it went etc. Also later if I find an article that might be interesting for the people I met, I will just forward the link to them to let them know. And people really like that and it helps to build the next steps of the relationship. It's not like we had coffee once and after that you disappear from my life. It helps to keep a connection.

Interviewer: So this is actually my last point. You said you were using referrals a lot. In terms of conversion rate to doing business with a person. Is that a lot better with referrals?

Interviewee: I think it works until a certain level. It really helps to get the first meeting. After that, regardless of whether you got an introduction, it doesn't help. If your product sucks, the referral does not help. So it helps on the first part to get the first meeting. After that it's all up to you. But when we talk about investors, I would say that the conversion is a little bit higher. So when one investor refers a startup to another investor, especially if that first investor invested themselves, that helps. But for sales I don't think it makes a difference.

Interviewer: So you get the first answer, but then you have to sell it yourself.

Interviewee: Yeah. You maybe have a better chance to get a decision from them. But it doesn't mean that that decision is positive. If it doesn't work, it doesn't work. With investors I think it is a little bit different. Especially with business angels. It's a small community so they all know each other.

Interviewer: So I think that was it from my side. I don't want to take more of your time. Thank you.

Interviewee: Okay thank you. You are welcome. I hope it helps.

(End of interview)

F. Transcript Interview Number 4

Interviewer: Daniel Scholz, researcher

Interviewee: Founder, CEO

Interview Setting: At a meeting room at the company's office in Copenhagen, Denmark

(Start of interview)

Interviewer: Hi, thanks for taking the time to talk to me today.

Interviewee: Hello. Of course. No problem.

Interviewer: So first I have a couple of questions. Could you elaborate a little on what it is that you guys do, how long you have been in business and so on and so forth?

Interviewee: So we have been in the education space since the last three years. We have started a company here in India, where I am from. I'm from New Delhi. We build our first product here. It did pretty well actually. It won three international awards for kids' products. It has done really well in terms of users etc. And then we got this opportunity to apply for this accelerator program in Europe.

Called Startup Bootcamp. So we were selected for that program and started here last year in June and were in the program for three months. We used that to really build our network within the Nordic region. We decided to establish our business there because we felt that it is better to start a business out of Denmark than out of India, because our main markets are the US and Europe. Since then we have been progressing well. We have pivoted away from our initial idea during Startup Bootcamp. We are going away from developing games directly for consumers and are actually building a tool for developers that allows them to convert their existing games into educational games. That's our new product that we will be launching next month. We got some funding from the Innovation fund Denmark. We are launching this new product now to see how the market reacts to that and from there on we will plan the further course of action.

Interviewer: How is the existing product doing?

Interviewee: The existing product is good because it brings in some revenue. At the moment we are selling the product to schools in Europe and we did a tie-up with a local television channel, Cartoon Network, and they are doing advertising for this product. This helps us to generate some money. So the old product is doing well, but that is not our main focus. This showed us that our strategy to provide good educational games is actually valid. However, as a business that is not a viable model because there are already so many good games available. So we're helping those games to also become educational games.

Interviewer: So you are partnering with developers to enhance their games?

Interviewee: Yes. We are providing them with a new revenue stream. Because they can sell their existing games and then easily also sell the educational game that is made from that. They can sell both separately.

Interviewer: So you are launching that now?

Interviewee: Yes, we are launching it in May.

Interviewer: So the old product is sort of the cash cow of the company. How is that going?

Interviewee: It generates good income but it does not cover our costs. So we also need the seed money to drive the business forward.

Interviewer: How many people are you actually?

Interviewee: We are five people full time and two people part time.

Interviewer: And you are only based here in Copenhagen.

Interveiwee: We have the office here and another one in New Delhi.

Interviewer: Interesting. Have you been in the educational sector before?

Interviewee: A little bit. We tried something else in the Indian market which couldn't scale so we changed to the Western market. Personally I worked in a number of fields, media, FMCG, and now education.

Interviewer: If we switch to the networking focus. How do you build your network? How do you like to network? How has that changed over the years?

Interviewee: I think the experience at Startup Bootcamp really helped. It's a good accelerator program. It is build in such a way that it connects you to successful entrepreneurs who have been in the startup environment for a couple of years. That really helped me to build my network in the Nordic region. Other than that, you meet people on different industry events. I used to actively participate in exhibitions. Education-focused exhibitions or gaming-focused exhibitions. So those kind of events also help you to build your network.

Interviewer: Alright. Would you say that the approach to building your network changed from when you started to how you do it now?

Interviewee: Yes. Definitely. The experience at the accelerator program was really good in terms of telling you how to network and helping you to meet influential people that can help you. That experience definitely helped. Other than that, I had my own network from back in India from business school and so on. But here it is a totally different kind of networking. You meet people who have been in the industry and so on.

Interviewer: Do you also use these mentors at your accelerator program to get introduced to yet other people?

Interviewee: Yes of course. The idea of mentors is that they connect you to people that they know and so on.

Interviewer: Alright. Would you say that those introductions are much better than contacting people directly?

Interviewee: Definitely. If you are introduced by a known person. That's much better than a cold call.

Interviewer: Would you say that the value of such an introduction changes as your business grows.

Interviewee: I guess initially; these introductions really make a difference. When you have a stable revenue stream, other types of network become also important. But at the moment, introductions are still very valuable for us.

Interviewer: You mentioned that you go to conventions and exhibitions quite a lot. How valuable to you think those events are?

Interviewee: I think it depends on how you try to make the most out of it. For example, most of these events; the way I prepare is to screen the attendee list and fix meetings beforehand. Its better than just going there. That's what I would advise entrepreneurs to do; to fix those meeting before.

Interviewer: Alright, I think we have covered all of my questions already. Thank you for your time.

Interviewee: Great. If you need more information from me, let me know.

(End of interview)