Embedded entrepreneurs in residential neighbourhoods: dynamics in and effects of social networks

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Embedded entrepreneurs in residential neighbourhoods: dynamics in and effects of social networks

Ingebedde ondernemers in woonwijken: de dynamiek en effecten van sociale netwerken

(met een samenvatting in het Nederlands)

Proefschrift

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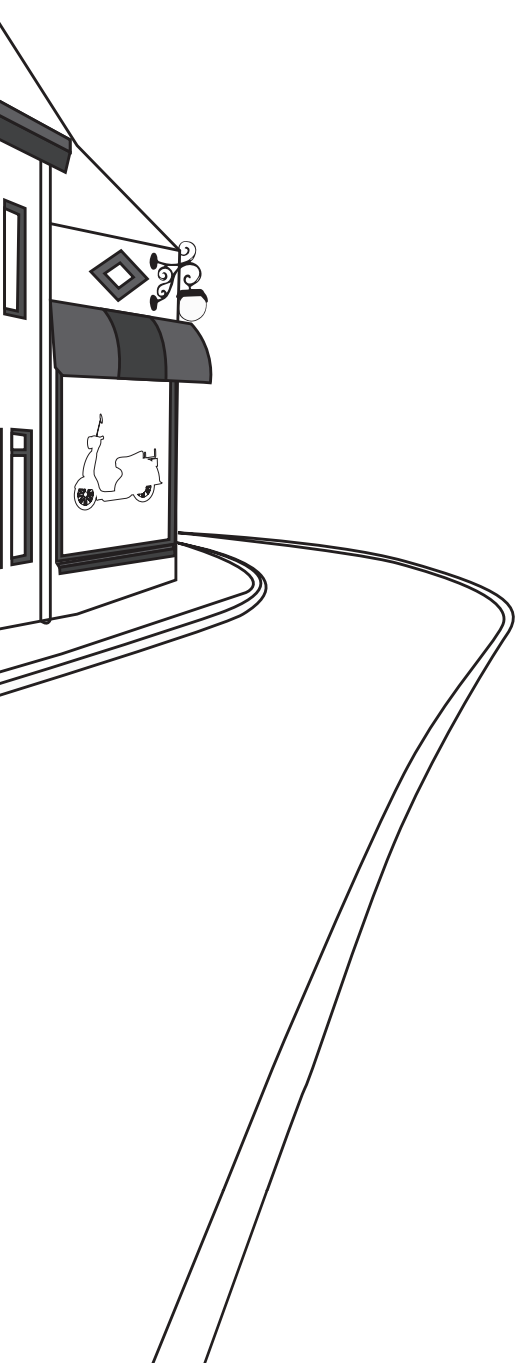
Chapter 1

Introduction



1.1 BACKGROUND: ENTREPRENEURSHIP IN RESIDENTIAL NEIGHBOURHOODS

After decades of functionalistic planning regimes, which advocated the separation and zoning of different urban functions, residential areas are once again becoming mixed-use spaces, where living and working are combined (Folmer & Risselada 2013). This development has been fuelled by advancements in telecommunications and information technologies enabling entrepreneurs to locate in and operate from alternative locations than traditional business parks or office-buildings (Folmer & Kloosterman 2017; Van Ham et al., 2017). Many entrepreneurs have located their firms in their neighbourhoods of residence, with the largest part of this group even being home-based (Mason, Carter & Tagg 2011; Reuschke et al., 2015). As was already advocated by Jane Jacobs in 1961, the combination of working, living and recreating in the same area leads to diversity and accordingly to economic development. However, whereas neighbourhoods traditionally housed a certain set of economic activities, such as mom-and-pop stores and other small-sized, locally focused businesses, the relationship between entrepreneurship and the neighbourhood environment may have changed since the 1960s because of changes in the type of business activities, economic sectors, facilitating platform economies, changing lifestyles and the way business is conducted currently (Folmer & Kloosterman 2017). Where local businesses historically were important actors in "creating and sustaining a close reciprocity between economic, social, political, religious and cultural activities" (Curran & Blackburn 1994, p. 172), the role of current-day local entrepreneurship is yet to be fully understood (Folmer & Kloosterman 2017). It is therefore important to understand and reconsider the interaction between firms and entrepreneurs on the one side and their local environment on the other now that economic activity has returned, albeit in a different fashion, to residential areas. This interaction is arguably closely related to the way entrepreneurs are embedded in their local contexts as a result of their social network contacts (Jack & Anderson 2002). Through these social networks, entrepreneurs are linked to other persons and firms, which, in turn, may bring benefits for firm development. In addition, having social contacts within a certain geographical space may also lead an individual to become increasingly connected to that specific locality (McKeever et al. 2014; Korsgaard, Ferguson & Gaddefors 2015). As such, in this thesis, entrepreneurial social networks are considered a nexus in the relationship between neighbourhood-based entrepreneurs and the local context in which they are active. This is why social networks are key in this thesis.

Previous work on entrepreneurship in residential neighbourhoods has either focused on the effects of the neighbourhood environment on entrepreneurship or on the effects of entrepreneurship on the neighbourhood context. Examples of the former interpretation include work on the reasons why firms locate and remain in residential neighbourhoods

(Reuschke & Houston 2016; Risselada, Schutjens & Van Oort 2013; Stam 2007), the local characteristics that attract and shape entrepreneurship (Beckers & Kloosterman 2013; Bosma & Sternberg 2014; Folmer & Kloosterman 2017), and the ways in which the local environment influences entrepreneurial outcomes (Sleutjes 2012; Welter, Trettin & Neumann 2008). The effects of firms and entrepreneurs on the residential neighbourhoods in which they are located, the second interpretation, have been studied with regard to their social networks (Schutjens & Volker 2010; Sleutjes & Schutjens 2012; Westlund & Bolton 2003), their role in neighbourhood-level social and physical disorder (Bosma, Schutjens & Volker 2016; Steenbeek et al., 2012; Steenbeek & Schutjens 2014), and their contribution to local economic development or revitalization (Welter, Trettin & Neumann 2008). This thesis focuses on a missing element, namely, the mutual benefits in the dynamic relationship among entrepreneurs, firm success and the local environment. Previous studies have often treated social networks as static entities due to the difficulties in collecting suitable data (Jack 2010; Lamine et al. 2015). However, as many previous studied have pointed out, entrepreneurial networks do change over time, and these network dynamics are considered important for firms and entrepreneurs in order for them to respond to changed circumstances (Afandi, Kermani & Mammadov 2017; Hoang & Yi 2015; Huggins et al., 2015). Therefore, changes in entrepreneurial social networks are also taken into consideration. As such, this study aims to contribute to the literature by addressing this relationship through focusing on the composition of and changes in the social networks of locally based entrepreneurs. Here, social network dynamics are considered the key factors in exploring the relationship between the entrepreneurs and their local environment, as the entrepreneurial networks may act as both accelerators of firm performance and 'the glue' embedding entrepreneurs in the neighbourhood (Dahl & Sorenson 2012; Welter, Trettin & Neumann 2008). Embeddedness is understood to be "the nature, depth, and extent of an individual's ties into the environment" (Jack & Anderson 2002, p. 483). Social networks and the changes therein form the mechanism through which an entrepreneur becomes socially and locally embedded (Jack & Anderson 2002; Trettin & Welter, 2011). In turn, social embeddedness affects entrepreneurs' ability to draw resources from their networks, both locally and non-locally, which is argued to positively influence firm performance (McKeever, Anderson & Jack 2014). Furthermore, Jack and Anderson (2002) describe local embeddedness as a "circular process", with entrepreneurs drawing from and giving to the local environment at the same time (Jack & Anderson 2002). Therefore, social networks are key in understanding the relationship and reciprocity among entrepreneurs, firm performance and the neighbourhood environment (Dahl & Sorenson 2012).

1.2 THE INTERPLAY BETWEEN ENTREPRENEURS AND THE NEIGHBOURHOOD ENVIRONMENT

Similar to other Western countries, the Netherlands has witnessed an increase in the number of entrepreneurs located in residential areas in the last ten years (Folmer & Risselada 2013; OECD 2017). This study focuses on small-sized firms located in Dutch residential neighbourhoods, with owner-managers (i.e., the entrepreneur) who often also lives in or close to the same local area. It is argued that a reciprocal relationship exists between these entrepreneurs and their local environment. Both sides of this relationship are discussed below.

On the one hand, the local environment can influence the entrepreneurs and businesses located there. For the entrepreneurs located in a residential neighbourhood, the local environment is an important context both on the economic and on the social dimension. Examples of the economic dimension include the neighbourhood environment serving as the firm's market, for instance, through local clientele, or as a production environment in terms of inputs, supplier relationships or employment (Sleutjes, Van Oort & Schutjens 2012). With regard to the social dimension, many entrepreneurs choose to locate their firms near or in their own homes because they already live there, have knowledge of the local environment and want to stay close to family and friends (Dahl & Sorenson 2012; Mason, Carter & Tagg 2011). This last reason, the desire for proximity to their network contacts, relates to the importance of social networks for entrepreneurs and firms. There is substantial theoretical and empirical evidence showing that resources accessed through network relationships have a positive effect on firm performance and firm development for small-sized businesses as well (Garnsey 1998; Gedajlovic et al., 2013; Stam, Arzlanian & Elfring 2014; Watson 2007; Westlund & Adam 2010). It is argued here that, for entrepreneurs located in residential neighbourhoods, the local environment is a likely source of network contacts (Westlund & Bolton 2003; Steyaert & Katz 2004; Bailey 2015). Because many of these entrepreneurs live and work within the same local environment, their daily activities are concentrated within the neighbourhood space. They have a 'double role' within their neighbourhoods as both residents and business actors. Furthermore, because the business and private (i.e., residential) locations of these entrepreneurs are often spatially linked at close distance, their business and private lives may also become intertwined with the local environment (Johannisson 2011; Vorley & Rodgers 2012). Moreover, over the life course of either the firm, the entrepreneur, or both, the importance of the local environment as a source of network contacts may change due to product development, managerial complexity or experience gained (Huggins et al., 2015). Neighbourhoods also change, for instance, in terms of composition or market and network opportunities. To understand these dynamics, it is important to study the social networks of the entrepreneurs located

in Dutch residential neighbourhoods from both a static (i.e., cross-sectional) and dynamic (i.e., longitudinal) perspective.

On the other hand, entrepreneurial activities are not only influenced by but also leave their mark on the local context in which they are present, for instance, through the provision of goods, services or employment to the neighbourhood (Kleinhans et al., 2017; Stam 2016). Additionally, the presence of firms and entrepreneurs in residential neighbourhoods may also impact the local social dimension, which is something that is increasingly being argued in, for instance, social entrepreneurship studies (Anderson & Gaddefors 2016; Ruskin et al., 2016; Zahra & Wright 2016). However, there is still a lack of empirical research on this topic (Müller 2016). Social value creation exists in many different forms and on different spatial scales (Zahra et al., 2009; Zahra & Wright 2016). Here, the focus is primarily on small-scale, locally centred value creation. As argued, the local environment is likely to be an important source of network contacts for neighbourhood-based entrepreneurs, leading to links and involvement with the local environment. In turn, this process and the 'double role' many of these entrepreneurs have may lead them to become active in local social value creation.

In line with the aforementioned arguments, the main research question of this thesis is *to what extent do the social network composition and social network change of entrepreneurs in residential neighbourhoods relate to their firms' performance and their activities regarding local social value creation?* The following sections present the knowledge from previous studies on the reciprocal relationship between entrepreneurs and the neighbourhood environment. In section 1.3, the academic streams of work on which this thesis is built are discussed. Section 1.4 focuses on the importance of social networks for small-sized businesses and discusses the need to study these networks from a dynamic perspective by considering network change over time. Additionally, this section addresses the way social networks drive (local) social value creation by linking to the notion of local social embeddedness. Finally, sections 1.5, 1.6 and 1.7 elaborate on this dissertation's research questions, methods and overall structure.

1.3 TWO ACADEMIC LITERATURES COMBINED IN THIS THESIS

This dissertation builds on two main perspectives to study entrepreneurship in residential neighbourhoods: the sociological and economic geography perspectives.

1.3.1 The sociological perspective: contextualization and social capital theory

The first perspective follows a current debate in entrepreneurship research on the importance of 'contextualization' (a.o. Audretsch et al., 2012; Welter, Gartner & Wright 2017; Zahra, Wright & Abdelgawad 2014). Many entrepreneurship studies previously focused on internal firm resources as the main explanatory factor of firm performance, which is in line with the resource-based view of the firm (Barney 1991). Firms differ in their development and performance outcomes as a result of differences in their internal resource base, whereby firms will gain a competitive advantage over others when they have resources that are rare, difficult to imitate, valuable and not interchangeable (Barney 1991; Dyer & Singh 1998). With these unique and strong internal resources, a firm will be able to survive over time and outperform the competition. This view of firm development has received a great deal of theoretical attention and empirical support, but in recent years, several authors have proposed to expand this perspective by including external firm resources that can be accessed through social networks (Dyer & Singh 1998; Zaheer & Bell 2006).

It is increasingly understood that every form of entrepreneurial activity occurs in and as part of multiple contexts and therefore should also be studied accordingly (Stam 2016). This perspective is part of what authors such as Hjorth, Jones and Gartner (2008) and Müller (2016) call the 'European school of entrepreneurship research'. This school mainly consists of European academic contributions that pay attention to the specific cultural and social contexts in which entrepreneurial activities take place by drawing from the sociology and institutional economics literatures (Hjorth, Jones and Gartner 2008). However, the notion that the social relationships of firms and entrepreneurs influence their business activities goes back to the influential works by, amongst others, Polanyi, Park, Simmel and Granovetter (McKeever, Anderson & Jack 2014). The latter was one of the first to coin the idea that economic action is embedded in social spheres (Granovetter 1985). Firms do not operate in social exclusion but are connected with the external environment through their business activities. Being embedded in social relationships can bring benefits to a firm, for instance, through their social connections, firms can access resources possessed by or available to external parties. These resources, accessed through the firm's social network, form the basis of social capital theory (Gedajlovic et al., 2013). Entrepreneurs and firms can use their social capital towards opportunity recognition, firm survival and further firm development (Dyer & Singh 1998; Slotte-Kock & Coviello 2010; Zaheer & Bell 2005). The resources that are exchanged through social networks can be intangible, such as information or advice, or tangible, such as financial capital or practical help (Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017; Hoang & Yi 2015).

In many of the previous studies on entrepreneurial social capital, limited attention has been paid to the spatial context in general, and the local context in particular, as a source of network contacts (Korsgaard, Ferguson & Gaddefors 2016; Welter 2011). Some recent studies have amended this gap in the literature by showing that the local environment can be an important source of resources, for instance, for solo entrepreneurs (Sleutjes & Schutjens 2012) or for firms active in cognitive-cultural sectors (Folmer & Kloosterman 2017). These studies, however, take a static view of the firm's or entrepreneurial local social networks, thereby ignoring the network change that may occur over time and may affect entrepreneurial outcomes. This thesis therefore contributes to the literature by not only examining the local dimension of social capital but also by exploring this dimension from a dynamic perspective (see section 1.4).

1.3.2 The economic geography perspective: relational thinking

The second perspective from which this thesis draws is economic geography. This field of research studies the location and distribution of economic activities, with the relationship between economic actors and their environment being one of the main foci. Traditionally, location theories within economic geography focus on costs, for instance, regarding different factors of production, and demand, such as the size of a market area or the level of local demand, as a means of model development (Bathelt & Glückler 2003; Yeung 2005). According to Bathelt and Glückler (2003, p. 123), this research tradition "treats space as a separate entity which can be described and theorized independently from economic action". This thesis, however, argues that there is a reciprocal and interacting relationship between current-day entrepreneurs and their residential neighbourhoods, following the aforementioned 'contextualization debate'. Consequently, this means that notions from traditional economic geography are not capable of exploring this relationship. Neighbourhood-based entrepreneurs currently are thought to be led by different location factors than merely the input- and market-related factors advocated in the traditional location theories (Risselada 2013). It is also likely that these entrepreneurs use their local environment differently than what is understood from traditional economic geography because of differences in the way business is conducted currently and potential changes in the importance of the local context as a business environment (Risselada 2013; Trettin & Welter 2011). Therefore, instead of the more traditional economic geography notions, this thesis utilizes concepts from a different stream within economic geography, namely, relational economic geography.

Relational economic geography focuses "on the ways in which socio-spatial relations of economic actors are intertwined with processes of economic change at various geographical scales" (Yeung, 2005, p. 37). This means that the social relationships of firms and entrepreneurs are the main points of focus within this subfield of economic geography. It

is argued that through their relationships with other firms, entrepreneurs or organizations, economic actors interact with their spatial environment, thereby simultaneously influencing and being influenced by this context (Trettin & Welter 2011). This means that the relational perspective concentrates on the micro-level of individual economic action by examining the social relations economic actors have (Bathelt & Glückler 2014). This micro-level focus is also applied here, as the social network of an individual entrepreneur is placed centre stage. As such, the relational economic geography draws on social capital theory by considering the role of social capital in economic action (Welter, Trettin & Neumann 2008). Similarly, relational economic geography also builds on ideas from the contextualization literature, particularly by focusing on the concept of embeddedness (Trettin & Welter 2011). The process of becoming embedded in a certain spatial context, i.e., local embeddedness, is one of the main concepts used within relational economic geography (Sunley 2009; Vorley, Mould & Courtney 2012). Local embeddedness also plays a prominent role in this study, as is discussed in the following section.

By examining the relationship between neighbourhood-based entrepreneurs and their local environment through a relational economic geography lens, we follow previous work by, among others, Sleutjes (2012) who has also studied entrepreneurs located in Dutch residential neighbourhoods. Sleutjes not only explored several traditional factors affecting the success and performance of neighbourhood-based firms, both on the physical and economic dimensions, but he also studied the effect of the social dimension through the social networks of these entrepreneurs. Interestingly, only this latter dimension was found to influence the performance of the entrepreneurs located in residential neighbourhoods. This outcome encourages the further exploration of this dimension, which this thesis aims to do.

1.4 SOCIAL NETWORKS AS NEXUS

In this thesis, entrepreneurial social networks are considered a nexus in exploring the relationship between neighbourhood-based entrepreneurs and their local environment. As such, this thesis builds on previous work on this topic; however, there are three noteworthy differences and additions to the existing literature. First, different dimensions within the entrepreneurial social networks are considered, including network size and network composition (see section 1.4.1). By itself, research on these dimensions is not new, but this thesis makes use of uniquely detailed data, which allows for in-depth examinations of the individual entrepreneurial network contacts (see section 1.8). Furthermore, the local context, as a source of network contacts, receives particular attention here because of the presumed importance of this context for entrepreneurs located in residential

neighbourhoods. Second, where Sleutjes (2012) and others (a.o., Folmer & Kloosterman 2017; Schutjens & Volker 2010) examined the social networks of neighbourhood-based entrepreneurs at one point in time, this dissertation looks at network change over time and relates this to firm performance and changes therein over time (see section 1.4.2). Third, in addition to firm performance, this thesis also considers local social value creation as one of the outcomes that may be influenced by an entrepreneur's social networks (see section 1.4.3). As such, this dissertation not only studies an economic outcome (i.e., firm performance) but also takes a broader look by exploring a potential social outcome (i.e., local social value creation).

1.4.1 The social networks of small-sized businesses

Typically, the population of firms located in residential neighbourhoods is comprised of solo entrepreneurs and micro-businesses, i.e., businesses with less than ten employees (OECD 2005; Reuschke et al. 2015). These small-sized businesses have a limited internal resource base due to their firm size, and this especially holds true for solo-entrepreneurs (Gherhes et al., 2016; Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017). This is also called the 'liability of smallness' (Brüderl & Schussler 1990) because these firms have fewer internal resources to fall back to in times of economic downturn than larger firms. For small-sized firms, resources accessed through their social networks are of crucial importance, as they add to the own internal resource base, counterbalancing small size disadvantages (Cooke 2007; Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017). By being embedded in social relationships, entrepreneurs can identify and mobilize resources, which they can use to their firms' benefit (McKeever, Anderson & Jack 2014). There is ample research on the role social capital accessed through network contacts plays in stimulating firm performance, as was, for instance, argued by Hayter (2013) in his extensive literature review on the importance of networks in entrepreneurship research. This stimulating role of social capital has also been demonstrated for small-sized businesses in particular, for instance, by Stam, Arzlanian and Elfring (2014) in their analyses of studies on the performance effects of entrepreneurs' social capital. Overall, they found a positive relationship between the social capital of small-sized firms and their performance, which means that entrepreneurs can benefit from investing in their social networks (Stam, Arzlanian & Elfring 2014). This thesis builds on this previous academic work by examining the way small-sized businesses located in Dutch residential neighbourhoods make use of their social networks and how these networks influence their firm performance. Network size and composition are also interesting in this respect because these network characteristics largely determine which particular resources can be accessed by the entrepreneurs of small-sized firms.

With regard to network size, previous research shows that network size in general has a positive influence on firm performance, although networks can also become too large and therefore too difficult to manage or maintain (Semrau & Werner 2014; Watson 2007). Linking this to the 'liability of smallness' argument, it is worthwhile to explore how this relationship works for the small-sized neighbourhood entrepreneurs in this study. Furthermore, network composition is also of interest here, as this is found to differ between small-sized firms and larger firms (Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017). For larger firms, their networks are composed of social capital at two levels, the organizational level and the level of each individual employee, giving them a large and diverse base of network contacts and therefore resources. In comparison, the network composition of smaller firms often coincides with the entrepreneur's own social network (Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017). This is because the owner-manager is the main source of network contacts for the firm, meaning that he or she is likely to use network contacts for both business and private purposes (Devins et al., 2005). This distinction is also taken into account in this research project. Individual contacts can fulfil different roles within a network. A network contact of an entrepreneur can be used for business purposes, private purposes or both (Hoang & Yi 2015). In the case of small-sized firms, and especially when considering solo-entrepreneurs, it is likely that many business and private contacts overlap and/or become intertwined over time. Therefore, network contacts used for business purposes, including inter-firm cooperation contacts, and network contacts used for private purposes are examined in this study.

Other compositional characteristics that are explored here relate to tie strength and tie locality. Tie strength has to do with high levels of trust, which lower transaction costs and ease the exchange of resources (Afandi, Kermani and Mammadov 2017). Strong ties are often family members, friends and other individuals with whom an enduring relationship has been build, such as inter-firm cooperation contacts. Tie locality relates to the geographic distance between the entrepreneur and a particular network contact. This thesis argues that the local environment is an important source of network contacts for entrepreneurs located in residential neighbourhoods because they work and live in a certain neighbourhood, thus spending most of their daily lives there (Johannisson 2011). This, in turn, is expected to lead to frequent interaction with other local residents and firms. As argued by Boschma (2005), spatial proximity facilitates frequent and face-to-face contact. This, in turn, leads to the building of trust and to the building of local social networks (Mason, Carter & Tagg 2011). Furthermore, the intertwined use of business and private contacts strengthens the links of neighbourhood-based entrepreneurs with the local environment. In addition, these strong and trust-based local social relationships ease resource exchange, thereby benefiting firm performance (Martynovich 2017). Therefore,

entrepreneurial social networks are considered to be the nexus in the relationship between the neighbourhood-based entrepreneurs and the local environment.

However, relying on social networks and social capital may also have 'a dark side', especially when an entrepreneur is 'over-embedded' in specific network relationships (Gedajlovic et al. 2013). Often mentioned dangers include inward-looking networks, with a lack of new information coming in or moral obligations towards network contacts that inhibit economic action (McKeever, Anderson & Jack 2014; Welter, Trettin & Neumann 2008). Network change is often mentioned as important in countering these constraints of such over-embedded relationships by bringing new resources to the firm (Gedajlovic et al., 2013).

1.4.2 On social network change: internal and external driving forces

Network change is important for firms and entrepreneurs, as it enables them to respond to changed circumstances, thereby safeguarding firm survival and improving firm performance over time (Hayter 2013; Watson 2007). Both internal and external firm forces lead to the need for alterations or actual changes in the network of an entrepreneur.

Considering internal firm forces, firm development over time brings about changes in the firm's resource needs. Studies by authors such as Garnsey (1998), Greve and Salaff (2003) and Jack, Drakopoulou Dodd and Anderson (2008) have examined changing resource needs in relation to stages in the firm life cycle. In the management literature, Garnsey's (1998) growth model has been an important contribution on this topic. Garnsey introduced a model of different potential growth paths of firms based on the firms' internal resources and the way these had to be changed in order to reach a new phase. For instance, firm performance changes can have either a positive or negative effect on the firm's life , thereby driving changes in firm resources. Whereas Garnsey's (1998) conceptual model is firmly placed within the resource-based view of the firm, which mainly focuses on the internal resource base of firms (Barney 1991), more recent studies have looked at social network change as the means of providing access to new or additional resources. In their study on firm establishment and social networks, Greve and Salaff (2003), for example, used insights from social capital theory and applied these to changes in entrepreneurial networks in the start-up phases of a firm. Jack, Drakopoulou Dodd and Anderson (2008) have built further upon this line of reasoning, but they applied an even stronger dynamic perspective by focusing on three longitudinal case studies. Similar to Garnsey (1998), both sets of authors argue that a different phase in the firm life course brings on the need for changes in a firm's resources, but authors other than Garnsey argue that social network change is key to accessing these resources (Greve & Salaff 2003; Jack, Drakopoulou Dodd

& Anderson 2008). As was previously mentioned, network change can also act as a counterweight to becoming too strongly connected to or 'over-embedded' in certain network contacts (Gedajlovic et al. 2013).

In addition to internal firm events, external firm events can also lead to network change. For instance, changes in market opportunities or institutional changes can require an altered or new method of firm operations, bringing about the need for new or additional resources. Other examples of external events include technological innovations, the entry of new competitors or particular societal demands, for instance, with regard to corporate social responsibility (Klammer et al., 2017). In addition, social networks change because network contacts simply move away or go out of business, thereby losing their function within the entrepreneurial network (Knoben 2011).

Apart from the aforementioned examples, a number of other studies have addressed the importance of social network change for entrepreneurs (see the literature reviews by Jack 2010 or Slotte-Kock & Coviello 2010). However, most of these studies are conceptual or theoretical, meaning that empirical research on social network change is still scarce (Jack 2010; Lamine et al., 2015; Stam, Arzlanian & Elfring 2014).

1.4.3 Local social value creation: social networks and embeddedness

In addition to the importance of entrepreneurial social networks for firm performance, which is a purely economic outcome, the social relationships of entrepreneurs also influence the way they perceive and impact their local environment. Here, this is linked to local value creation, as it is argued that the networks of the entrepreneurs located in residential neighbourhoods also play a role in driving this social entrepreneurial behaviour. As such, the entrepreneurial social networks are thought to not only have an impact in economic terms but also have a social outcome.

Because the residential neighbourhood serves as a business and private context for the entrepreneurs located there, this enables them to build and maintain strong local social networks (Johannisson 2011). Additionally, because many of these entrepreneurs both work and live in the same area, they become acquainted with the local culture, norms and available resources (Andersson & Larsson 2016; Martynovich 2017). Furthermore, through interacting with other locals, an entrepreneur may become attached and attach meaning to the neighbourhood context (Cresswell 2007). Several authors relate this to the notion of local or 'placial' embeddedness (Jack & Anderson 2002; Korsgaard, Ferguson & Gaddefors, p. 586). In turn, this process of establishing local networks and becoming acquainted with the local context can drive the social contribution of entrepreneurs towards the residential

neighbourhood in which they are located. In other words, their local social networks cause entrepreneurs to become locally embedded, leading them to become increasingly aware of local social issues and possibly also driving their willingness to create local social value. By considering the role and influence of their social networks, this study explores whether entrepreneurs located in residential neighbourhoods create social value, both locally and non-locally. By doing so, this dissertation also links to the current debate on the social value of entrepreneurship to society (Anderson & Gaddefors 2016; Zahra & Wright 2016).

1.5 ELABORATING ON THE MAIN ARGUMENT AND RESEARCH QUESTIONS

This thesis explores the abovementioned arguments through an analysis of entrepreneurs who own and run small-sized firms located in Dutch residential neighbourhoods in or near where they also live themselves. Previous research on this particular group has focused on how the physical, economic and social characteristics of the residential neighbourhood shape and influence firms' location behaviour (Risselada 2013) and firms' performance (Sleutjes 2012). This research builds on those previous studies by specifically focusing on the social networks of these entrepreneurs, both locally and beyond, from a dynamic perspective. Learning more about the composition of and changes in entrepreneurial networks leads to additional insights into the role social networks play in both firm development and local social value creation. The social networks of these entrepreneurs are expected to play an important role in their firm's development, which is explored by studying the relationship between social network change and changes in firm performance. Furthermore, through their local social networks, these neighbourhood-based entrepreneurs may become active in creating local social value, thereby yielding local social benefits. Additionally, this will lead to a better understanding of the interdependent relationship between small-sized businesses located in residential neighbourhoods and the local environment.

These points of focus lead to the following central research question:

To what extent do the social network composition and social network change of entrepreneurs located in residential neighbourhoods relate to their firms' performance and their activities regarding local social value creation?

To answer the central research question, it is broken down into three interrelated sub questions.

1. *To what extent do the networks of entrepreneurs located in residential neighbourhoods change over time, and how do these changes relate to the characteristics of the entrepreneur, the firm and the existing social network?*
2. *How do changes in both the entrepreneurial social networks and firm performance influence each other?*
3. *To what extent are entrepreneurs located in residential neighbourhoods involved in local social value creation, and what is the role of their local social networks therein?*

The first sub question is concerned with the description and explanation of changes in the social networks of the entrepreneurs located in residential neighbourhoods. It is necessary to start with this exploration of network change itself, in order to better understand how and why these network changes occur, before discussing the relationship between network change and firm performance change. Based on previous studies, different characteristics of both the entrepreneur and the firm are taken into account to explore and explain changes in the entrepreneurial networks over time (Hoang & Yi 2015). Furthermore, network change over time is explored by not only studying network size dynamics in general but also by examining network changes on the level of the individual network contact, resulting in in-depth and detailed insights into entrepreneurial network change.

The second sub question discusses the relationship between changes in entrepreneurial social networks and firm performance changes. In addition to the often studied effects of social networks on firm performance, this sub question also examines the impact of changes on firm performance on the entrepreneurial network, thereby adding to the literature base on this topic. This sub question also considers the characteristics of the individual entrepreneur and the firm in studying the relationship between social network change and firm performance change (Sleutjes 2012; Stam, Arzlanian & Elfring 2014).

Finally, the third sub question examines whether the entrepreneurs are active in local social value creation, and to what extent their local social networks drive their behaviour in this regard. This links to the academic debate on the social value of entrepreneurship (Anderson & Gaddefors 2016; Zahra & Wright 2016). Furthermore, the third sub question explores the local social networks of the entrepreneurs in relation to the process of local embedding, which may also drive local social value creation (Kleinhans et al., 2017; Korsgaard, Ferguson & Gaddefors 2017).

Summarising the three abovementioned sub questions, the entrepreneurial social network and changes therein are related to firm performance and firm performance change on the one hand and local social value creation on the other. These main relationships are visually represented in Figure 1.1. This thesis focuses on the factors depicted in the dark

blue rectangles. Firm performance and changes therein as well as local social value creation, depicted on the right-hand side, are the main outcomes examined in this study. The size and composition of and changes in the social networks of entrepreneurs located in residential neighbourhoods (left-hand side) are the main explanatory factors. Network size, network composition and network change are expected to influence both outcomes, as was previously discussed. Additionally, firm performance, and the changes therein, also influence the entrepreneurial networks, as is illustrated by the two-way arrow in Figure 1.1. It can also be argued that local social value creation may influence the social networks of neighbourhood-entrepreneurs. This potential influence, however, is beyond the scope of this thesis.

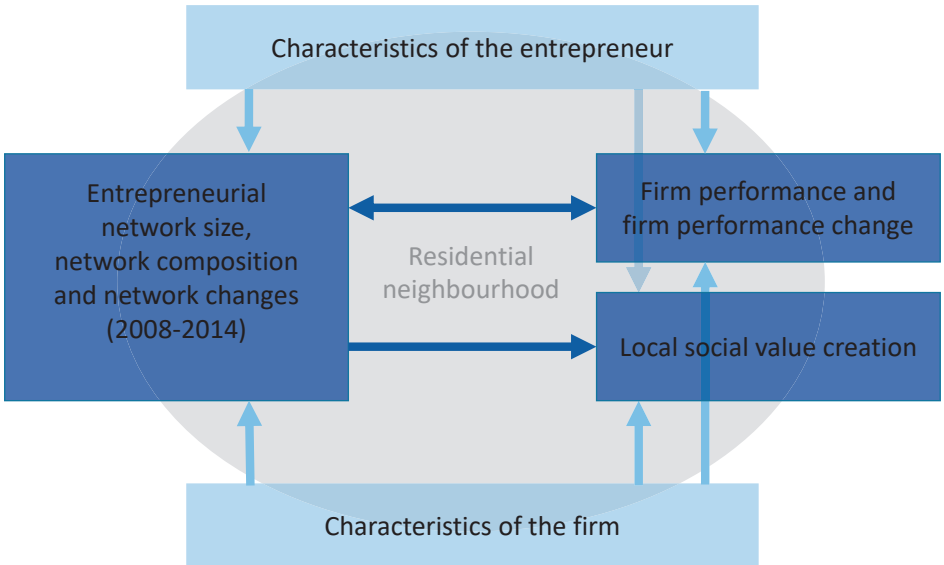


Figure 1.1: The main relationships studied in this thesis

The characteristics of the individual entrepreneur as well as the characteristics of the firm itself, as illustrated in the light blue frames, influence entrepreneurial network size, composition and change, firm performance and local social value creation. These associations are depicted by the light blue arrows. As this study is focused on entrepreneurial activities located in residential neighbourhoods, the local context is represented in the oval shape. However, all factors considered as part of the analyses have both a local as well as non-local dimension. For example, the social networks of the entrepreneurs are comprised of both local and non-local contacts. Next, examples of non-local firm characteristics include the firm's sector, the market area or the firm's inputs. In addition, with regard to the characteristics of an individual entrepreneur, which may have a non-local dimension, an entrepreneur may, for instance, have been be brought up or have a second source of employment outside the neighbourhood context. Therefore, each rectangle is partly placed outside the residential context.

1.6 RESEARCH METHODS USED IN THE THESIS

This thesis uses both quantitative and qualitative research methods. Quantitative data form the primary data source for the majority of the chapters. Additionally, one chapter (chapter six) builds on qualitative data. This framework allows for a broad examination of network composition and changes in the social networks of entrepreneurs located in Dutch residential neighbourhoods and the way these entrepreneurs are connected to the local environment through their social networks. The quantitative analyses are utilized for examining the social networks and changes therein of a large group of entrepreneurs, whereas the qualitative part of this thesis paints a more in-depth picture of the role of the social networks with regard to social value creation, although only for a small group of entrepreneurs.

The quantitative data are adapted from two waves of the Survey on the Social Networks of Entrepreneurs (SSNE); the first wave was conducted in 2008 and the second in 2014. The sampling setup of the SSNE follows the one of the Survey on the Social Networks of the Dutch (SSND) (Volker & Flap 2002). For the SSND, Volker and Flap (2002) constructed a random stratified sample of 161 neighbourhoods in 40 municipalities, which are representative for the different urbanization levels present within the Netherlands. In the SSNE, these same 161 neighbourhoods were selected; however, because entrepreneurs could not be found in every neighbourhood, the SSNE was ultimately conducted in a total 141 neighbourhoods. In the first wave of the SSNE (SSNE1, in 2008), 385 entrepreneurs participated; in the second wave (SSNE2 in 2014), there were 383 participants. Out of the total number of participants per wave (385 in 2008 and 383 in 2014), 214 entrepreneurs participated in both waves. As such, there is data on two points in time for this group, meaning that changes in their social networks and the way these affect firm performance can be studied.

Both waves of the SSNE offer rich and extensive data on the social networks and other personal and firm-related characteristics of the entrepreneurs who have participated. With the use of name-generating questions (see Appendix 1A.1), information was gathered on each individual network contact and the relationship between the entrepreneurs and that particular network contact. As such, the data include information on the type of relationship the entrepreneur has with a specific network member, for instance, whether a network contact is a family member, friend or acquaintance. Additionally, for each network contact, there is information on whether he or she resides in the same neighbourhood, the level of trust the entrepreneur expresses in the relationship with this individual and how long both parties have known each other. Overall, the respondents have mentioned a total of 2,408 network contacts in 2008 and 2,646 contacts in 2014. The 214 entrepreneurs who participated in both waves of the SSNE have mentioned 1,359 network contacts in total in 2008 and 1,436 contacts in 2014.

In addition to the large-scale survey data, this thesis is also based on qualitative data derived from semi-structured, in-depth interviews. Whereas the quantitative data are mainly focused on the social networks of the entrepreneurs participating in the two waves of the SSNE and their relations with their local neighbourhood environment, the interviews take on a somewhat different perspective by addressing the entrepreneurs' actions towards social value creation, both locally and non-locally, in relation to their social networks. However, the entrepreneurs who have been interviewed did not participate in either wave of the SSNE, so there is no overlap between the respondents in the quantitative and qualitative empirical analyses. The interviews were conducted in different neighbourhoods in the Dutch cities of Amersfoort (three neighbourhoods) and 's-Hertogenbosch (two neighbourhoods). In total, 18 interviews with entrepreneurs have been conducted, and these data have been supplemented by seven expert interviews and extensive desk research. The interviews are used to analyse whether the entrepreneurs are active in creating social value, whether local or non-local, and the factors driving their behaviour in this respect, with particular focus on the role of their social networks, also both local and beyond, as a behavioural driver. By doing so, the interviews give insight into the potential role the entrepreneurs play in their local environment with regard to social value creation.

1.7 OUTLINE OF THE THESIS

This thesis consists of five empirical chapters followed by a general conclusion, which answers the research questions. The chapters follow the structure of the three sub research questions. Each chapter focuses on a different part of the entrepreneurial social network and relates this to different outcomes. This is summarized in Table 1.1.

Table 1.1: The types of network contacts and outcomes studied per chapter

	Research question 1		Research question 2		Research question 3
	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6
Type of network contacts studied					
Inter-firm cooperation contacts	x		x	x	x
Contacts used for business purposes		x	x	x	x
Contacts used for private purposes		x		x	x
Types of outcomes studied					
Changes in network size	x	x	x	x	
Changes in network composition	x	x		x	
(Changes in) firm performance			x	x	
Local social value creation					x

Chapters two and three both address different dimensions of network change. Chapter two explores whether the local context is an important source of inter-firm cooperation contacts and whether this changes over time. In chapter three, network change is studied from a broader perspective, as the private and business dimensions of the entrepreneurial social networks are taken into account. The chapter gives an overview of the changes in the entrepreneurial networks over time with respect to network size and network composition. Together, chapters two and three provide an answer to the first sub question. Both chapters make use of data from the two waves of the SSNE and are based on quantitative analyses.

Chapters four and five both also have a quantitative focus and use data from the SSNE in order to provide an answer to the second sub question. In chapter four, the relationship between changes in the entrepreneurial social networks and firm performance change is examined. Chapter five also studies the relationship between network change and firm performance, but this chapter focuses on in-depth network change on the level of the individual network contact by exploring network change and network stability over time.

The third sub question is addressed in chapter six, which focuses on the social value of entrepreneurship. By drawing on the in-depth interviews, this chapter examines whether entrepreneurs who own small-sized firms located in residential neighbourhoods are active in local social value creation, what drives their behaviour, and to what extent their social networks, local or non-local, play an influencing role in this regard.

Finally, the central research question and the three sub questions are addressed in chapter seven, which also discusses this thesis' scientific and policy implications, limitations and potential avenues for future research.

APPENDIX

Table 1A.1: The five name-generating questions used in this thesis

	Name-generating question
1	With whom did you discuss important matters regarding your firm and its development during the last six months?
2	With which firm does your firm cooperate formally on a frequent basis?
3	If you are doing odd jobs for the firm and you need someone to give you a hand, e.g., sending invoices or cleaning up, whom do you ask for help?
4	If you are doing an odd job at home and you need someone to give you a hand, e.g., to carry furniture or to hold a ladder, whom do you ask for help?
5	With whom did you discuss important personal matters during the last six months?

Source: SSNE 1, 2008 and SSNE 2, 2014.

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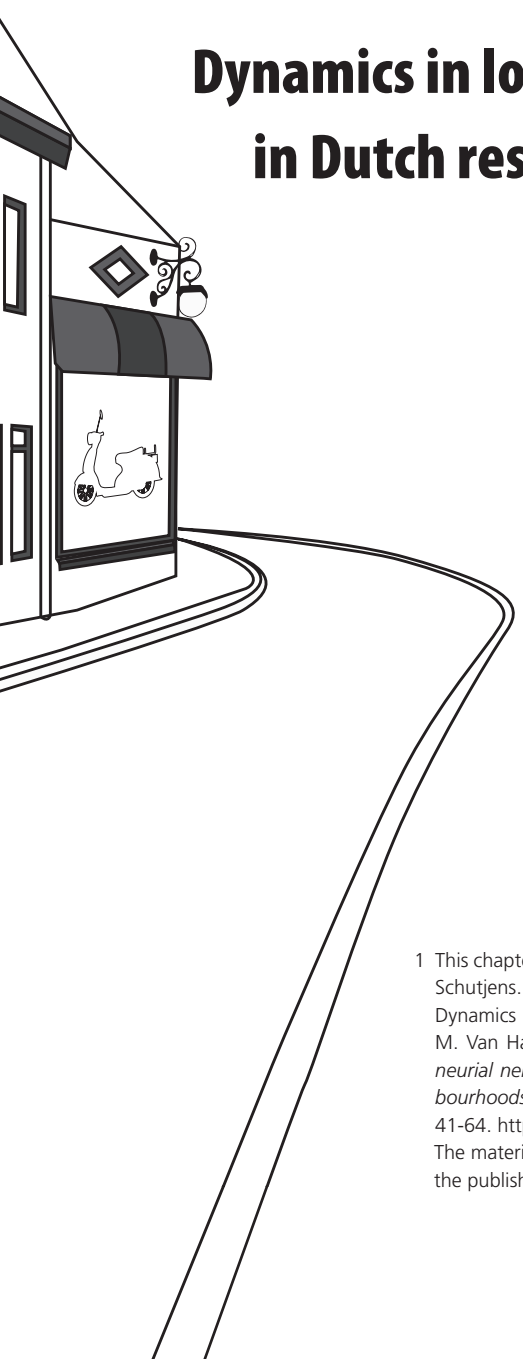
Chapter 2



Dynamics in local inter-firm cooperation in Dutch residential neighbourhoods[1]

1 This chapter is a slightly adapted version of the chapter co-authored by Veronique Schutjens. The final version is available as: Beer, M. de & V. Schutjens (2016). Dynamics in local inter-firm cooperation in Dutch residential neighbourhoods. In M. Van Ham, D. Reuschke, R. Kleinhans, C. Mason & S. Syrett (Eds.) *Entrepreneurial neighbourhoods: towards an understanding of the economies of neighbourhoods and communities.* Cheltenham UK: Edward Elgar Publishing Inc., pp. 41-64. https://doi.org/10.4337/9781785367243

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2.1 INTRODUCTION

This chapter focusses on cooperation between firms as a source of social capital of firms or entrepreneurs. Following Granovetter (1985), firm behaviour is thought to be embedded in social contexts, and in recent decades this view has spurred the interest in firm interactions and entrepreneurial networks, often referred to as a firm's social capital (Watson 2007). Many scholars have demonstrated that social capital derived from a firm's network is valuable for different types of firms in different stages of development (Watson 2007; Vorley & Rodgers 2012). However, the spatial dimension of inter-firm cooperation has not been fully investigated. Especially for small and often home-based firms located in residential neighbourhoods, the number of which is strongly increasing (OECD 2015), it remains unclear whether proximity to cooperation contacts matters for firm survival and firm success. It has already been argued that the daily life of entrepreneurs who both live and work in the same neighbourhood – this is what we call neighbourhood entrepreneurs – is strongly focussed on the local context (Johannisson 2011; Vorley & Rodgers 2012). This chapter investigates to what extent this local orientation is also true for the inter-firm cooperation of these neighbourhood entrepreneurs and how this changes over the firm life course.

Inter-firm cooperation investigated in this chapter is defined as cooperation between firms leading to mutual advantages by exchanging knowledge, helping one another and learning from each other on a wide range of topics. This is quite different from market-based relationships between firms, like sales relations or contact with suppliers or contractors. One could assume that working together with other entrepreneurs and firms is crucial for entrepreneurs with firms located in residential neighbourhoods, due to their 'liability of smallness' (Brüderl & Schussler 1990). This means that, on their own, most neighbourhood entrepreneurs may lack the internal resources and capacity to develop their businesses, which can be compensated for by cooperating with other firms. Changes in communication technologies during the last two decades have increased the possibilities for firms of finding and maintaining relationships with other firms without the necessity of face-to-face contacts. This notwithstanding, previous research has shown that the networks of small firms often show a strong local focus (Huggins & Johnston 2010). Spatial proximity also facilitates other forms of proximity; thereby enabling cooperation (Boschma 2005). Moreover, local contacts were found to enhance neighbourhood firms' success (Sleutjes, Van Oort & Schutjens 2012).

This chapter investigates, first, whether the local context is an important source of inter-firm cooperation for entrepreneurs who live and work in the same neighbourhood. Local inter-firm cooperation relationships that remain stable over time may be beneficial to individual firms, but will also contribute to a robust neighbourhood economy offering business opportunities and entrepreneurial potential. The chapter therefore explores, second,

whether local inter-firm cooperation becomes more important over the firm life course. In answering these questions, we control for several characteristics of the entrepreneurs and their firms in a multivariate analysis. These include, based on the literature review, firm age, firm home-basedness and firm local market orientation.

In exploring the literature on the inter-firm cooperation contacts of neighbourhood entrepreneurs in section 2.2, we first discuss both the resource-based view and the social capital view on firm development. Next, we elaborate on studies regarding entrepreneurial network change and local embeddedness of entrepreneurs. Based on the literature review, assumptions are formulated regarding the determinants of local inter-firm cooperation of neighbourhood entrepreneurs and changes therein. Section 2.3 presents the data and methods, followed by the empirical analysis in section 2.4. A discussion of the findings is presented in section 2.5.

2.2 THEORETICAL PERSPECTIVE

2.2.1 Social Networks and Social Capital of Firms

Firms possess specific internal resources which are combined and used to generate revenue and establish growth. The resource-based view, originating from the field of management and strategy studies, has a strong focus on firm internal processes. Penrose (1959) was one of the first to link the internal resources of a firm to its development and performance over time. This idea has been widely accepted in studying competitive advantages of firms (Garnsey 1998; Barney, Wright & Ketchen 2001).

Notwithstanding the usefulness of the resource-based theory of the firm in understanding firm performance, many authors have called for an extension of the resource-based view to include external social capital as a type of network resource (Street & Cameron 2007; Zaheer & Bell 2005). Dyer and Singh (1998) argue that firms have access to and use resources outside the boundaries of the firm through the firm's social network. Entrepreneurs and firms can use their social network to gain access to all kinds of resources ranging from emotional and practical support to financial capital, information and market access (Welter 2011). The notion that certain resources can be accessed through networking is commonly referred to as the social capital of a firm or entrepreneur. Focussing on inter-firm cooperation, this is found to lead to information exchange, cost sharing, product development, access to financial capital and social support (BarNir & Smith 2002; Huggins & Johnston 2010; Street & Cameron 2007). According to Cooke (2007, p. 100) social capital gained from cooperation even is a 'key ingredient of successful performance' in terms of turnover, employment and profit. Other scholars have also found a positive relation between inter-

firm cooperation and firm performance, in terms of sales (Lechner & Dowling 2003) and profitability, lower costs, increased innovation and added value (Street & Cameron 2007).

However, as a firm's growth path consists of successive phases, each requiring different resources, firms need capabilities to change, expand and renew their resources in order to address problems they encounter during the life course (Garnsey 1998). This is why a more dynamic life course perspective on firms' networks and resources is important.

2.2.2 A Dynamic Perspective on Firm Networks

Longitudinal research could shed more light on the relationship between network change and firm performance over time in comparison to cross-sectional research (e.g. Hoang & Yi 2015; Stam, Arzlanian & Elfring 2014). A dynamic perspective on firm networks and entrepreneurial networks is needed as firms and entrepreneurs are faced with firm internal as well as external triggers that can lead to changes in their social and business contacts. For example, entrepreneurs can purposefully change their networks in line with the firm internal strategy to gain new resources or enter new markets in order to diversify or to grow (Hoang & Yi 2015). Firm growth as such will also bring about changes in the firm's networks. For small firms this often means that they turn from relying on their pre-existent social networks to 'strategically chosen' contacts offering access to specific resources (Huggins & Johnston 2010).

Examples of firm external events that could trigger network alterations are changing market conditions or the loss of a network contact, for instance when a cooperation contact goes out of business or moves to another location (Knoben 2011; Slotte-Kock & Coviello 2010). Finally, wider social, political and economic events could also change firm and entrepreneurial networks as these networks are embedded in place-specific structures (Reuschke & Van Ham 2013). This local embeddedness is particularly relevant for small entrepreneurs who combine home and work in one particular spatial setting, namely the residential neighbourhood.

2.2.3 The Neighbourhood Entrepreneur

The private and business lives of neighbourhood entrepreneurs, who live and work in the same neighbourhood and who are the key actors in this chapter, are often strongly intertwined and rooted in local environments (Johannisson 2011; Michelacci & Silva 2007). We found in an earlier study (De Beer, Mollenhorst & Schutjens 2016) that the number of all contacts Dutch neighbourhood entrepreneurs consult for both private and business purposes increased over time and that in particular the number of local contacts grew significantly. Reuschke and Van Ham (2013) give the following two reasons for such strong local links: the private context of the entrepreneurs, for instance, their family; and the

local dimension of entrepreneurial social capital. The local context is an important source of social capital for entrepreneurs, for example, in gaining resources, acquiring market or product information or hiring employees.

In the UK, the Netherlands and other western countries the group of neighbourhood entrepreneurs, and especially home-based entrepreneurs, has grown in number over the last decade, thereby bringing economic activities into residential areas (Folmer & Risselada 2013; Mason, Carter & Tagg 2011; OECD 2015). Several empirical studies have shown that the neighbourhood context matters to local firm success (e.g. Michelacci & Silva 2007; Sleutjes, Van Oort & Schutjens 2012). For home-based entrepreneurs, the benefits of working from home include cost savings in comparison to renting office space, flexibility in combining business activities with family care or other personal undertakings, and advantages in terms of local market knowledge or a pre-existing customer base (Reuschke & Van Ham 2013; Vorley & Rodgers 2012). However, some entrepreneurs run their firms not from home but in the vicinity of their homes. Apart from having higher renting costs than home-based entrepreneurs, they benefit from the same advantages of being close to home.

2.2.4 Reasons for Changing Local Inter-Firm Cooperation over the Firm Life Course

The benefits of inter-firm cooperation are numerous, especially for small firms compared to larger ones, as small firms cannot internalize resources (Brüderl & Preisendörfer 1998; Schoonjans, Van Cauwenberge & Vander Bauwhede 2013). Many scholars have provided arguments to expect an overall increase in inter-firm cooperation at the neighbourhood level over the firm life course. Firstly, both the social and business networks of young or small firms generally tend to be spatially localized, even for the fast growing ones (Huggins & Johnston 2010; Stam 2007). Further, because many private daily activities of neighbourhood entrepreneurs often take place within the residential area in which they live, pre-existing ties with other local firms might be strengthened (Johannisson 2011). Secondly, local embeddedness could increase over time as a result of frequent contact and interaction at the local level, that is, spatial proximity fosters relationships (Andersson & Larsson 2014; Boschma 2005; Harrison 1992). Thirdly, the rising number of new and small businesses located in residential neighbourhoods also increases the potential supply of local partners to cooperate with (Folmer & Risselada 2013; OECD 2015). Finally, in previous work we found an increase over time in the number of local contacts used by neighbourhood entrepreneurs, especially for advice or practical support on business matters (De Beer, Mollenhorst & Schutjens 2016). Accordingly, we also expect an increase in the number of local cooperation partners.

However, one could argue the opposite and assume a decrease in local inter-firm cooperation over time. Especially in the initial phase of inter-firm cooperation, face-to-face contact

and frequent interaction is crucial (Huggins 2010). However, after having built trust and established formal contracts, information and communication technologies (ICTs) may make spatial proximity redundant. But, as we focus on neighbourhood entrepreneurs in this chapter, we expect that for this specific group of entrepreneurs, spatial proximity will remain important over time.

The importance of local inter-firm cooperation and its change over the firm life course might differ among firms and entrepreneurs. Three firm characteristics are seen as key in explaining local inter-firm cooperation and its change therein.

First, we expect that home-based businesses especially are involved in local inter-firm co-operation. Reuschke and Houston (2016) tested a somewhat different assumption, namely that home-based businesses use local contacts for business advice more often compared to businesses that are not run from the owner's home, but they could not find evidence to support the assumption. However, we think that, in contrast to business advice, inter-firm cooperation in general needs frequent and intensive interaction and possibly also face-to-face contact (Huggins 2010). And we believe that this type of intensive contact within the neighbourhood can be more easily achieved by home-based entrepreneurs than by other entrepreneurs. Working from their own home may make these entrepreneurs more likely to interact with their local environment, both on the personal and business level (Mason, Carter & Tagg 2011, p. 627). We assume that their inter-firm cooperation relationships mirror this local embeddedness. Furthermore, we expect that for home-based businesses local cooperation contacts remain more important over time than for non-home-based businesses.

Second, due to liability of newness, easy access to resources is of the utmost importance for young firms (Lechner & Dowling 2003). Compared to older and more established firms, young firms lack a reputation in the market and are less known to other firms. As a consequence, new entrepreneurs may seek for cooperation partners close by (Huggins & Johnston 2010). We therefore assume younger firms to have more local firm cooperation contacts compared to older firms, but these differences are expected to disappear over the firm life course, as young firms become established.

Third, we expect entrepreneurs running firms that serve local markets such as in retail and catering industries, personal services and private education to have more local firm contacts than firms with a non-local market orientation. As the residential neighbourhood is their market area, they may be more likely to get in contact with other local residents and entrepreneurs. Over time, these local connections are expected to increase as the firms become increasingly known and embedded in the community context (Sleutjes, Van Oort & Schutjens 2012).

2.3 METHODS AND DATA

2.3.1 Data

In this study data are used from the Survey on the Social Networks of Entrepreneurs (SSNE). This survey on personal networks of entrepreneurs in Dutch residential areas started in 2008 as an addition to the existing Survey on the Social Networks of the Dutch (SSND, 1999/2000, Volker and Flap 2002). Building upon this large SSND study on personal networks of residents in 161 representative Dutch neighbourhoods in 40 municipalities, 385 local entrepreneurs in 141 neighbourhoods[2] were interviewed in 2008 about their firm, social networks and local environment. These local entrepreneurs had a firm located in one of the research neighbourhoods and lived in or very close to this neighbourhood (a maximum of ten minutes of walking distance to their firms). With an overall response rate of 37.3 per cent,[3] on average two or three entrepreneurs per neighbourhood were interviewed.

In 2014, all entrepreneurs who were still in business were contacted, which led to a sample of 314 entrepreneurs. Approximately 68 per cent of these entrepreneurs participated in the second wave of the SSNE in 2014. Seventeen of these 214 entrepreneurs quitted their business activities or had a non-response to one of the questions at hand, resulting in a panel of 197 entrepreneurs who participated in both 2008 and 2014.

2.3.2 Measurements

Several established methods exist to collect relational data (for an overview, see Schutjens, Mollenhorst & Volker 2015). In this study, the name-generating method was used. It enquires into patterns of help and support exchanges among individuals. The method involves two steps (see Fischer 1982). First, names of network members (nicknames or initials) are collected through a number of name-generating questions. Second, the names are 'interpreted', in the sense that additional information is asked about each person mentioned as well as about the relationship between the focal actor (ego) and the network member (alter).

In this chapter, we focus on a small subset of the entire social and professional network of an entrepreneur by studying cooperation between firms. Hereby we explicitly exclude inter-firm market linkages, like supplier relationships, buyer relationships or contractor relationships. Instead, we mean cooperation on a frequent basis on business-related issues

2 Only in 141 neighbourhoods were entrepreneurs present or willing to participate.

3 Of the 1,545 firms present in the 161 neighbourhoods (in 2008) 1,031 fitted the research requirements. The response rate therefore is 385/1,031.

leading to mutual support, the exchange of knowledge and help on a wide range of topics, providing benefits for both parties involved. From the questionnaire we use the question 'With which firm does your firm cooperate formally on a frequent basis?'[4] In answer to this question the respondents could mention a maximum of three firms. It has to be noted that a small part of all entrepreneurs (around 20 per cent) mentioned three cooperation contacts, and it can be expected that some of them had even more. As such, this truncation in this particular question on cooperation might lead to an underestimation of the total number of cooperation contacts. This is clearly a limitation of our study as we are not able to investigate the full business networks of firms. This also affects our methodological approach.

With additional 'name-interpreting' questions we gathered detailed information about each cooperation contact and the characteristics of the cooperation, including the geographical distance in kilometres between the entrepreneur and the firm cooperation contact, which enables differentiation between local and non-local ties.

The neighbourhood was defined as the district within a 1-kilometre range around the entrepreneur because this usually corresponds to an area that can be reached in a ten-minute walk and, thus, within the 5-digit postal code districts under study (see also Volker, Flap & Lindenberg 2007). However, for inter-firm cooperation, the municipal level might also be appropriate, as entrepreneurs in residential neighbourhoods may also need to look for suitable cooperation contacts in a wider area than their own neighbourhoods. We therefore included an indicator to measure inter-firm cooperation at the municipal level (i.e. within a 4-kilometre range).

2.3.3 Data Analyses

The dependent variables are based on a categorical indicator of the number of inter-firm cooperation contacts. The entrepreneur could mention a minimum of zero to a maximum of three contacts, in both 2008 and 2014. We used ordered logistic regression models to investigate the total and local number of inter-firm cooperation contacts in 2008, and the changes therein between 2008 and 2014. To control for issues concerning outliers and heteroscedasticity we used robust standard errors. We also checked for multicollinearity. Additional measures and analyses are available upon request.

4 Only the respondents reported on these relationship characteristics – we do not know whether the cooperation partner agrees.

2.3.4 Dependent variables

Six dependent variables are used in the multivariate analyses (Table 2.1). The first three are the number of firm cooperation contacts in 2008, measured as the number of firms with which an entrepreneur cooperates at three levels: total level; the neighbourhood level (1-kilometre range); and the municipal level (4-kilometre range). Dependent variables four, five and six (change in inter-firm cooperation contacts over time, change in neighbourhood level inter-firm cooperation contacts over time and change in municipal level inter-firm cooperation contacts over time respectively) reflect the change between 2008 and 2014 in the number of total, neighbourhood and municipal firm cooperation contacts respectively.

2.3.5 Independent and control variables

As explained in the literature review, three independent variables are assumed key in explaining the number of firm contacts and changes: home-based firms, young firms and local market oriented firms (Table 2.1).

Furthermore, we control in the analysis for several variables that can be assigned to three groups as shown in Table 2.1. The first group of control variables is related to the alternative sources an entrepreneur may use for help on business-related matters. We consider the ambiguous effect of having a business partner. On the one hand, the presence of a business partner might reduce the necessity to cooperate with other firms as internal consulting and information sharing is possible. On the other hand, it might lead to more cooperation, as the business partner also has a social and professional network that can be accessed (Schutjens & Wever 2000). The same contrasting arguments apply to the size of the informal network consisting of personal contacts the entrepreneur can rely on for practical firm support or advice on business matters (but excluding inter-firm cooperation). A larger number of these personal contacts might lessen the need for firm contacts.
By contrast, when entrepreneurs share business issues with many personal contacts they might get in touch more easily with other firms with whom to cooperate.

The second group of control variables is linked to the number of potential cooperation partners an entrepreneur knows or got the chance to know over time. In this respect, entrepreneurs who state they are aware of the presence of many other firms within the neighbourhood are expected to also have more local cooperation links than entrepreneurs quite unaware of the supply of potential local partners. Next is the age of the entrepreneur and the length of residence in the neighbourhood, which are expected to have a positive effect on firm cooperation. Older entrepreneurs or long-time residents have had more time to establish cooperation contacts than younger entrepreneurs or new residents.

Table 2.1: Elaboration of the dependent and independent variables

Variable	Explanation	N	Average	Standard Deviation	Value	Percent
Dependent variables						
Inter-firm cooperation contacts (IFCC)	The total number of inter-firm cooperation contacts mentioned by the entrepreneur in 2008 (SSNE1)	246	1.25	1.22		
Neighbourhood level inter-firm cooperation contacts	The number of inter-firm cooperation contacts present within 1-km range from the location of the firm mentioned in 2008 (SSNE1)	30	0.15	0.45		
Municipal level inter-firm cooperation contacts)	The number of inter-firm cooperation contacts present within 4-km range from the location of the firm mentioned in 2008 (SSNE1)	70	0.36	0.71		
Change in inter-firm cooperation contacts over time	Difference in the total number of inter-firm cooperation contacts mentioned by the entrepreneur in 2008 (SSNE1) and 2014 (SSNE2)	-26	-0.13	1.48		
Change in neighbourhood level inter-firm cooperation contacts over time	Difference in the number of inter-firm cooperation contacts within 1-km range of the firm mentioned by the entrepreneur in 2008 (SSNE1) and 2014 (SSNE2)	8	0.04	0.7		
Change in municipal level inter-firm cooperation contacts over time	Difference in the number of inter-firm cooperation contacts within 4-km range of the firm mentioned by the entrepreneur in 2008 (SSNE1) and 2014 (SSNE2)	-5	-0.03	0.87		
Independent variables						
Key variables						
Home-based firm	The entrepreneur lives at the same address as his/her firm in 2008 (SSNE1)	197			0=no 1=yes	18% 82%
Young firm	The firm has been in business for 3 years or less in 2008 (SSNE1)	197			0=no 1=yes	85% 15%
Locally oriented firm	The firm is active in personal services, private education or retail and catering in 2008 (SSNE1)	197			0=no 1=yes	65% 35%

Table 2.1: Elaboration of the dependent and independent variables (continued)

Variable	Explanation	N	Average	Standard Deviation	Value	Percent
Control variables						
- *Control variables related to access to alternative sources for advice and practical support (APS)*						
Advice or practical support contacts (APSC)	The total number of contacts mentioned by the entrepreneur in answer to two name-generating questions regarding advice and practical support on business matters in the SSNE1 (2008)	361	1.83	1.24		
Neighbourhood level contacts offering advice or practical help	The number of contacts living within a 1-km range of the firm mentioned by the entrepreneur in answer to two name-generating questions regarding advice and practical support on business matters in the SSNE1 (2008)	48	0.24	0.63		
Municipal level contacts offering advice or practical support	The number of contacts living within a 4-km range of the firm mentioned by the entrepreneur in answer to two name-generating questions regarding advice and practical support on business matters in the SSNE1 (2008)	95	0.48	0.82		
Business partner	The entrepreneur has a business partner in 2008 (SSNE1)	-			0=no 1=yes	68% 32%
- *Control variables related to knowing firms to cooperate with*						
Gender	Gender of the entrepreneur (SSNE1)	197			0=Female 1=Male	28% 72%
Age	Age of the entrepreneur in years in 2008 (SSNE1)	197	49.57	9.55		
Years of residence	Length of residence of entrepreneur in the neighbourhood in years in 2008 (SSNE1)	197	15.85	12.6		
Local firm estimation	Number of other firms present in the neighbourhood as estimated by entrepreneur in 2008 (SSNE1)	173	35.28	53.38		

Source: SSNE1, 2008 and SSNE2, 2014, authors' own compilation

Finally, we control for gender. With regard to having and finding new local cooperation partners, male entrepreneurs are expected to differ from female entrepreneurs. Social network research has shown that the networks of women are often more focussed on the local environment than those of men (Hanson & Blake 2009). We therefore expect female entrepreneurs to have more local business contacts than their male counterparts.

2.4 FINDINGS

2.4.1 Characterizing Inter-Firm Cooperation

As is shown in Table 2.2, the number of cooperation contacts suggests that inter-firm cooperation is a rare phenomenon among the neighbourhood entrepreneurs analysed. Almost one in four entrepreneurs (23 per cent) mentioned no firm cooperation at all in both years. Furthermore, the number of neighbourhood firms with which inter-firm cooperation exists is relatively small; approximately 17 per cent of all cooperation contacts in 2014 can be found within 1 kilometre (38 out of 220 contacts). Inter-firm cooperation in 2014 at the municipal level is somewhat more substantial with around 30 per cent of all cooperation contacts (65 out of 220 contacts) being located within the municipality. These outcomes suggest that neither the neighbourhood nor the municipality is an important arena for inter-firm cooperation, at least not for the group of neighbourhood entrepreneurs under investigation.

Table 2.2: Size and change in total and local cooperation contacts, and reasons for cooperation between 2008-2014 (standard deviations in brackets).

	2008	2014	change
Total inter-firm cooperation contacts			
Number of inter-firm cooperation contacts	246	220	-26
Average number of inter-firm cooperation contacts	1.25 (1.22)	1.12 (1.12)	-0.13
Neighbourhood level inter-firm cooperation contacts (located < 1 km)			
Number of neighbourhood level inter-firm cooperation contacts	30	38	+8
Average number of neighbourhood levelinter-firm cooperation contacts	0.15 (0.45)	0.19 (0.55)	+0.04
Municipallevel inter-firm cooperation contacts (located < 4 km)			
Total number of municipal level inter-firm cooperation contacts	70	65	-5
Average number of municipal level inter-firm cooperation contacts	0.36 (0.71)	0.33 (0.70)	-0.03
Most important reason for inter-firm cooperation mentioned by respondents (in %)			
Purchases & Supplies	25%	21%	
Sales	13%	13%	
Production goods and services	30%	33%	
Research and Development	4%	7%	
Logistics and Transport	10%	2%	
Other reasons	19%	25%	

Source: SSNE1, 2008 and SSNE2, 2014, authors' own compilation

The entrepreneurs were asked to indicate the most important reason for cooperation for each of the firms they cooperate with. Cooperation with partners in the firm value chain is mentioned most often, with the joint discussion of or joint work on 'production of goods and services' as the most important reason of cooperation, followed by cooperation with respect to purchases, supplies and sales. Also, the reasons for cooperation differ remarkably across geographic scale in both 2008 and 2014. Cooperation on 'production of goods and services' is mentioned as the most important reason for cooperation with non-local firms, while 'research and development' and 'other reasons', such as cooperation on training and education, are mentioned relatively more often in motives for cooperation at the local scale.

There are no large differences between the most important reasons mentioned for cooperation at the neighbourhood level compared to the municipal level, suggesting that there is no specific type of inter-firm cooperation exclusively related to nor apparent at either the neighbourhood or the municipal level.

The total net decrease of 26 cooperation contacts between 2008 and 2014 actually masks another development within inter-firm cooperation. Net change is the result of all remaining, disappearing and new contacts in the period under analysis (2008–2014). In the 2014 questionnaire, respondents were asked to compare the names of the firms with whom they cooperated with the list of cooperation partners they had mentioned in 2008. As such, we are able to detect in detail how many and which cooperation contacts remained, which disappeared and which were added between 2008 and 2014.

Between 2008 and 2014, only 29 of the 246 cooperation contacts have remained, who were mentioned by 23 entrepreneurs. This means that the firm cooperation contacts changed substantially. Approximately 88 per cent of all inter-firm cooperation contacts disappeared between 2008 and 2014 and many of these were replaced by new cooperation contacts. We believe that this substantial replacement of individual cooperation contacts can only be partly explained by the number of cooperation partners ceasing activities in the (recession) period under study. In this particular period in the Netherlands, yearly only 8 per cent of micro-businesses (less than ten persons) and 9 per cent of the solo-entrepreneurs ceased business activities (Central Bureau of Statistics 2016). Therefore, it can be argued that changing inter-firm cooperation is not simply the result of partners exiting the market. Instead, it seems that neighbourhood entrepreneurs regularly – and maybe voluntarily – seek out new cooperation partners. Therefore, we may conclude that, for our group of neighbourhood entrepreneurs, inter-firm cooperation is a temporary phenomenon.

Table 2.3: Results of ordered logistic regression of number (2008) and change in number (2008-2014) of total, neighbourhood and municipality inter-firm cooperation contacts

	Total number of inter-firm cooperation contacts in 2008			Change in number of inter-firm cooperation contacts 2008-2014		
	Model 1 Total	Model 2 Neighbourhood	Model 3 Municipality	Model 4 Total	Model 5 Neighbourhood	Model 6 Municipality
Inter-firm cooperation contacts		0.93***	1.29***	-1.26***	-0.49**	-0.74***
Key variables						
Home-based firm	-0.12	-0.72	-0.99†	0.32	0.63	0.8†
Young firm	0.18	0.79	0.58	0.6	-0.72†	-0.78*
Locally oriented firm	-0.51	0.16	0.12	-1.32***	-0.58	-0.58
Control variables related to access to alternative sources for advice and practical support (APS)						
Advice or practical support contacts	0.19			0.1		
Neighbourhood level contacts offering advice or practical help		0.67†			-0.74*	
Municipal level contacts offering advice or practical support			0.31			-0.49*
Business partner (2008)	-0.06	-0.46	0.29	0.23	0.65	0.001
Control variables related to knowing firms to cooperate with						
Gender	0.09	0.81	0.21	-0.6†	0.72	-0.4
Age	-0.008	-0.04	-0.001	-0.04*	-0.002	-0.03
Years of residence	-0.01	0.04*	0.008	0.01	-0.02	-0.006
Local firm estimation	0.000	-0.003	0.005	-0.004	0.002	-0.004

Table 2.3: Results of ordered logistic regression of number (2008) and change in number (2008-2014) of total, neighbourhood and municipality inter-firm cooperation contacts (*continued*)

	Total number of inter-firm cooperation contacts in 2008			Change in number of inter-firm cooperation contacts 2008-2014		
	Model 1 Total	Model 2 Neighbourhood	Model 3 Municipality	Model 4 Total	Model 5 Neighbourhood	Model 6 Municipality
Cutpoint 1	-1.30	2.58	3.43			
Cutpoint 2	-0.41	4.49	4.93			
Cutpoint 3	0.36	6.28	6.75			
Cutpoint 1				-7.14	-7.08	-7.73
Cutpoint 2				-5.71	-5.61	-6.28
Cutpoint 3				-4.5	-3.84	-4.95
Cutpoint 4				-2.11	1.36	-0.72
Cutpoint 5				-0.65	2.2	0.65
Cutpoint 6				1.16	43.48	1.95
Log pseudolikelihood	-230.1	-66.3	-101.79	-241.60	-123.32	-166.71
Pseudo R-squared	0.01	0.20	0.24	0.16	0.09	0.11
N	173	173	173	173	173	173

†p<0.1*p<0.05**p<0.01*** p<0.001

Source: SSNE1, 2008 and SSNE2, 2014 .

2.4.2 Analysing Influences on Inter-Firm Cooperation

The number of total inter-firm cooperation contacts, the number of inter-firm cooperation contacts on the neighbourhood level and the number of inter-firm cooperation contacts on the municipal level, all measured in 2008, are the dependent variables in models 1 to 3 respectively in Table 2.3. Models 1 to 3 in Table 2.3 show that only a small number of variables significantly relate to inter-firm cooperation. First, the findings in models 2 and 3 show that, when the number of total cooperation contacts increases, cooperation at both the neighbourhood and municipality level also increases. This implies that entrepreneurs with relatively many inter-firm cooperation contacts are similarly oriented towards their neighbourhood or municipality, as are their counterparts with less cooperation partners.

The only key variable to have a significant influence is whether the business is run from the owner's home or not (home-basedness), of which the negative parameter sign is contrary to what we expected. Working from their own home does not lead to entrepreneurs having more cooperation contacts within their neighbourhood. At the municipal level, home-basedness has a negative and significant influence on the number of cooperation contacts, which suggests that home-based businesses relatively often leapfrog beyond the municipality borders when looking for cooperation partners. These findings at both the neighbourhood and the municipality level are in line with the findings of Reuschke and Houston (2016). In their study on the use of neighbourhood resources they also found no evidence of home-based businesses having a relatively strong focus on the local context. Factors that lead to an increased number of inter-firm cooperations are the number of neighbourhood level contacts offering informal business advice or practical help and the number of years of residence within the neighbourhood. This means that getting informal help or business advice from others is no substitute for inter-firm cooperation. Also, it might be that sharing business-related topics with persons living in the neighbourhood opens doors to cooperation with local firms. Furthermore, long-term residents have had more time and therefore more chance to get to know other firms present in the neighbourhood and build cooperation relationships.

2.4.3 Exploring Change in the Inter-Firm Cooperation

Models 4 to 6 in Table 2.3 present the findings on changing inter-firm cooperation between 2008 and 2014 in total, on the neighbourhood level and the municipal level respectively. Over time the number of cooperation contacts decreases for entrepreneurs with many inter-firm contacts in 2008 whereas entrepreneurs with few contacts in 2008 experience an increase. Regarding the three key variables, namely home-based firms, young firms and locally oriented firms, our assumptions for home-based firms hold only at the municipal level. Compared to non-home-based firms, entrepreneurs running their firm from home have increased the number of cooperation contacts within the municipality.

We further find that, over time, young firms decrease their number of local cooperation contacts at both the neighbourhood and municipal level more than older firms, which is in line with our expectations.

Furthermore, for firms with a local market orientation inter-firm cooperation becomes less important over time. However, this seems not at the expense of neighbourhood contacts or municipal contacts. For these particular locally oriented firms, primarily the number of contacts outside the municipality decreases (as only the parameter for total cooperation contacts is significant), which suggests that the neighbourhood or municipality becomes a relatively more important source of cooperation contacts.

Turning to the control variables, we found that inter-firm cooperation at the neighbourhood and municipal level decreases over time when entrepreneurs already get advice or practical support from others. This suggests a substitution effect over time, however, it remains unclear why we found the opposite for the 2008 measurement in models 2 and 3. We also found an age effect in inter-firm cooperation. Male or older neighbourhood entrepreneurs have had a larger decrease of inter-firm cooperation contacts over time than their female or younger counterparts. This age effect might suggest that experience over the years lessens the need to cooperate with other firms.

2.5 DISCUSSION AND CONCLUSION

In contrast to several studies suggesting that inter-firm cooperation is important for firms and especially small-sized firms (Huggins & Johnston 2010; Street & Cameron 2007), the findings in this chapter show that inter-firm cooperation for our group of neighbourhood entrepreneurs is limited. From this we conclude that collaboration with other firms based on knowledge exchange and mutual support does not seem to be a common strategy for entrepreneurs located in residential neighbourhoods.

A second key finding of this study is that inter-firm cooperation relationships are found to be far from stable over time. Studying inter-firm cooperation from a dynamic perspective has allowed us to uncover an unexpected turnover in the cooperation relations of the neighbourhood entrepreneurs. The relatively large number of disappearing (and replaced) cooperation contacts reveals that the cooperation of neighbourhood entrepreneurs with other firms is loose or temporal in nature. It therefore appears as if the search for new cooperation partners is a continuous process. Whether these changes in inter-firm cooperation are caused by firm internal or external events could not be investigated with the data at hand. In line with the firm life-cycle literature, the firms might have strategically

changed their inter-firm cooperation contacts in order to gain new or additional resources (Garnsey 1998; Huggins & Johnston 2010). It also seems reasonable to assume that the period of economic downturn, in which this research took place, has led to changes in inter-firm cooperation. This calls for new data collection in other periods and multiple measurements over time, and in our case, for future panel waves. In addition to analysing new survey or panel data, more in-depth, qualitative research is needed to disentangle the different forces having an effect on the inter-firm cooperation relations of our group of entrepreneurs.

Furthermore, and in contrast to our expectations, the studied neighbourhood entrepreneurs did not particularly focus on local firms to cooperate with. Only a small proportion of all cooperation contacts is located in the neighbourhood or municipality in which the entrepreneur is located. Apparently, the strong links with the local environment of our group of neighbourhood entrepreneurs are limited to their private lives (Johannisson 2011; De Beer, Mollenhorst & Schutjens 2016) and do not include inter-firm cooperation. Therefore, we conclude that inter-firm cooperation is not one of the channels through which entrepreneurs are locally embedded. If local embedding exists, we believe this process to take place predominantly through social networks used for private matters, as we know from previous research that social and private networks play an important role in linking entrepreneurship to the local spatial context (McKeever, Jack & Anderson 2015; Reuschke & Van Ham 2013). In addition, these social and private networks might offer sufficient resources for the entrepreneurs, thereby reducing or even eliminating the need to cooperate with other local firms. This is in line with our finding that entrepreneurs who received much business advice or practical help from locals experience a decrease in the number of local cooperation contacts in the five-year period studied. The presence of local contacts helping out with business-related matters seems to make investments in additional local inter-firm cooperation redundant.

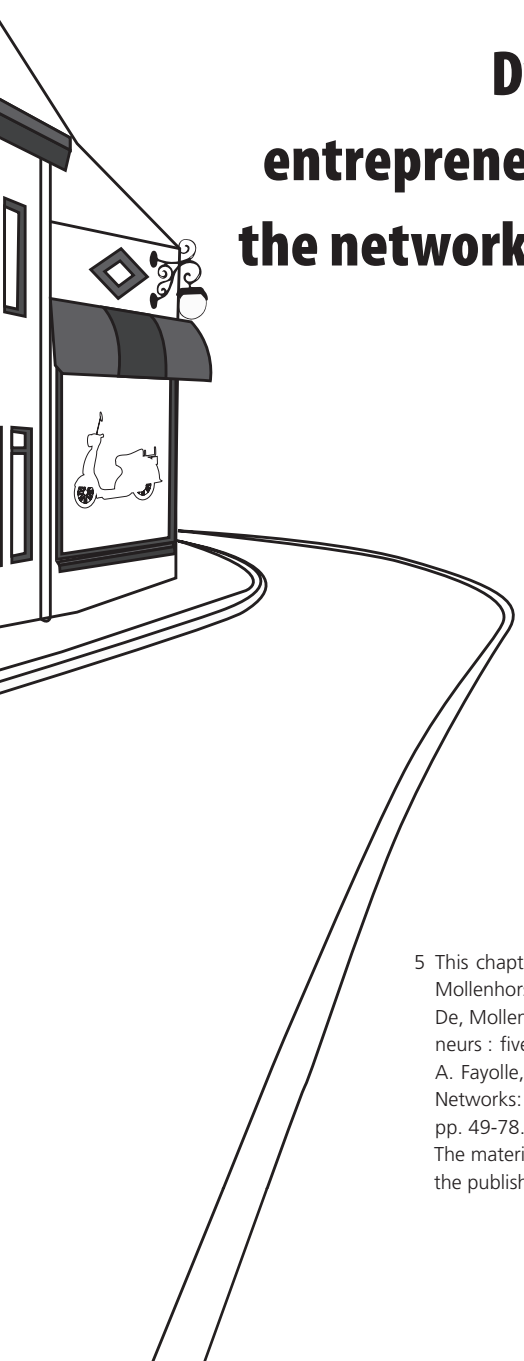
The lack of local inter-firm cooperation of neighbourhood entrepreneurs could also be caused by difficulties in finding potential cooperation partners within the local context. Although we tried to control for this, it is still possible that neighbourhood entrepreneurs fail to seize all opportunities for inter-firm cooperation present within their own neighbourhoods. But to what extent do neighbourhood entrepreneurs know each other and also meet each other? The rising demand for co-working locations might be a sign that self-employed professionals, like the neighbourhood entrepreneurs under study, actively search for places of interaction and networking, which they seem unable to create themselves (Spinuzzi 2012).

We are aware that our study has limitations. First, in the interviews, respondents could only mention up to three businesses with which they cooperated. The truncation in the questionnaire resulted in an underestimation of the number of cooperation contacts and this could have affected our outcomes. Second, our findings only hold for the specific group of neighbourhood entrepreneurs located in the Netherlands in a particular period and time, which makes generalization to different contexts in place and time difficult. Finally, it is important to note that studies with repeated measurement point always suffer from a certain degree of bias, for instance in the selection of the cases. Our panel consists of entrepreneurs who are still in business in 2014 thereby eliminating ones who terminated their business activities between 2008–2014. However, additional analyses showed no significant difference in the number of inter-firm cooperation contacts between firms that dropped out of the panel and the panel of entrepreneurs investigated in this chapter.

To conclude, for our panel of entrepreneurs the neighbourhood is a place for living and working, and provides contacts for them personally as well as for business purposes. However, the neighbourhood is not the prime arena for inter-firm cooperation. The entrepreneurs studied in this chapter might be truly 'neighbourhood entrepreneurs' with regard to their personal and professional daily lives, but we found that a neighbourhood entrepreneur is not necessarily a neighbourhood co-operator. As such the academic literature discussed in this chapter does not seem to capture or explain the behaviour of our group of Dutch neighbourhood entrepreneurs. Additional research on these types of neighbourhood entrepreneurs is needed, as their numbers are increasing in several Western countries, and their presence links economic activities to the residential neighbourhoods in which they live.

DE BEER

Chapter 3



Dynamic social networks of entrepreneurs: six years of change in the networks of Dutch entrepreneurs[5]

5 This chapter is a slightly adapted version of the chapter co-authored by Gerald Mollenhorst and Veronique Schutjens. The final version is available as: Beer, M. De, Mollenhorst, G., & Schutjens, V. (2016). Dynamic social networks of entrepreneurs : five years of change in the networks of Dutch entrepreneurs. In S. Jack, A. Fayolle, D. Chabaud and W. Lamine (Eds), Entrepreneurial Process and Social Networks: A Dynamic Perspective. Cheltenham UK: Edward Elgar Publishing Inc., pp. 49-78. https://doi.org/10.4337/9781785364884

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3.1 INTRODUCTION

Within the field of entrepreneurial studies it has been widely accepted that the network of the entrepreneur matters greatly to firm development, for both private and business purposes (Gedajlovic et al., 2013; Johannisson 2011). These network contacts provide the entrepreneurs with relevant information, resources and meaning (Anderson, Drakopoulou Dodd & Jack 2010). This so-called 'social capital' is understood to be important for both the formation and the survival of small-scale businesses. Through their network contacts, entrepreneurs can gain access to resources they themselves lack, especially when their firms are young or small. And it is exactly these new and small-scale businesses that are upcoming in residential neighbourhoods (see Folmer & Risselada 2013). Increasingly, the residential neighbourhood is becoming a place for both living and working, as the shift from the industrial era to the post-industrial service economy, together with advancements in telecommunications, has created possibilities for neighbourhood-based working (Folmer 2014; Mason, Carter & Tagg 2011; Sleutjes, Van Oort & Schutjens 2012). Furthermore, a growing number of entrepreneurs decides to start their business from or nearby their own home. This is what Johannisson (2011) calls 'the everydayness of entrepreneuring', the ways in which entrepreneurs can combine their living with their working spaces and, by doing so, centralize their daily activities in a neighbourhood. For these entrepreneurs, this means that parts of their family, social and business networks can overlap, as the boundaries between their working and their private lives become blurred. Overlap in these two components of entrepreneurial networks, private and business, has to our knowledge not yet received much research attention.

In addition, the local context can also play an important role in the supply of external resources. Mason, Carter and Tagg (2011) discuss three types of resources, the first being supporting services, such as printing, postal services and technical support. The second type has to do with the availability of spaces to socialize and network. Nowadays places like coffee-bars and cafés are increasingly being used as informal meeting places where entrepreneurs can network with other self-employed workers (Mason, Carter & Tagg 2011). Lastly, entrepreneurs sometimes feel the need to use formal meeting places, for example when meeting a client, giving a presentation or using specialized facilities for business support. Often entrepreneurs can fulfil their needs for each of these three types of resources within their own neighbourhood, which reinforces their ties with the local environment (Mason, Carter & Tagg 2011).

However, entrepreneurial networks (i.e. the networks of entrepreneurs) are not stable: in today's turbulent economic landscape it is important that entrepreneurs react and adapt quickly to opportunities and threats. As a response social capital, and therefore networks

of entrepreneurs, will change over time (Jack et al., 2010). To a limited degree scholars are adopting a dynamic perspective on entrepreneurial networks – but mostly still in a rather static comparison of network structures at two points in time. Stam, Arzlanian and Elfring (2014) concluded from a meta-analysis of 59 studies focusing on the relation between small-firm performance and entrepreneurial networks that only five studies adopted a true longitudinal analysis whereby the same set of firms is followed over time. However, these five panel studies vary considerably in the time span used and the number of firms under research. The meta-analysis by Stam, Arzlanian and Elfring (2014) showed that the majority of the studies analysed used a cross-sectional research design instead. As Martinez and Aldrich (2011) state, static cross-sectional studies can offer insights into the structure of networks, but lack detailed information on the stability and change of ties over time.

It is therefore interesting to gain more insight into the ways entrepreneurial networks change over time. Do entrepreneurs rely on different types of network contacts as time progresses? Does the number of strong ties, for example family members or friends, change over time? Or do entrepreneurs rely more on weak ties, contacts with whom they do not have an ongoing and deep social relation (Davidsson & Honig 2003; Martinez & Aldrich 2011)? Is the 'everydayness' of entrepreneurship still prevalent over a longer period of time or does the importance of the local or neighbourhood level change (Johannisson 2011)?

In this chapter we want to explore these questions by focusing on the social networks of entrepreneurs in 161 neighbourhoods in the Netherlands. We add to the existing literature by employing a dynamic perspective by examining entrepreneurial network changes over a period of six years. This chapter deals with the following research question: to what extent have the social networks of entrepreneurs in Dutch residential neighbourhoods changed between 2008 and 2014 with respect to network size and composition? We explore the change of network composition on three dimensions: (1) family/non-family network contacts; (2) local/non-local network contacts; and (3) overlap between personal/private and entrepreneurial network contacts. In a repeated measurement design, data on the same panel of entrepreneurs measured at two points in time enable us to observe and examine the changes that have taken place in the entrepreneurs' professional and personal networks over a six-year period. An important addition to earlier studies is that we are also able to look at overlap in the parts of the entrepreneurial networks used for private and business purposes. A family member, for instance, can offer both emotional support on a personal level and give assistance with business-related activities, thus having role overlap within the network of the entrepreneur. The findings of our explorative study can provide us with new insights into the dynamics of entrepreneurial networks of small-scale businesses in a world that is becoming increasingly interconnected and relational.

3.2 THEORETICAL PERSPECTIVE

This chapter focuses on the changing networks of entrepreneurs running firms in residential neighbourhoods. Research on entrepreneurial networks is far from new. However, large-scale empirical studies on entrepreneurial network change are still in a pioneering stage. The extensive review of entrepreneurial network studies by Hoang and Antoncic (2003) demonstrated that over time, academics have viewed networks from at least two different angles: from an instrumental and a dynamic perspective.

3.2.1 The instrumental view on networks

The first perspective focuses on the effect of social networks on the entrepreneurial process or the success of firms. There is abundant theoretical (e.g. Martinez & Aldrich 2011; Nahapiet & Ghoshal 1998; Welter 2011; Westlund & Adam 2010) and empirical work on the importance of social networks for entrepreneurs and the performance of their firms measured in terms of revenue growth (Arregle et al., 2015), turnover, profitability and employment (Cooke 2007), time to break even and sales (Lechner, Dowling & Welpe 2006), firm survival, profit and return on equity (Watson 2007). Network contacts are extremely valuable to an entrepreneur as they constitute the conduits through which complementary resources and useful information for the firm can be accessed. This resource-based view of relationships is commonly referred to as social capital (Burt 1992). The social capital resulting from networking is seen to have a positive relation with firm performance (Watson 2007; Westlund & Adam 2010). Cooke (2007) found that for small and medium-sized enterprises social capital is 'a key ingredient' for the firm's successful performance measured by turnover, profitability, employment and indicators of innovation. Other authors agree that this relation exists, but they question the real contribution networks have on firm performance. Sleutjes and Schutjens (2012) found that the support networks of neighbourhood-based firms could only marginally explain the growth of these firms in terms of sales, profit and employment. The link is there, but other factors, such as characteristics of the firm and the entrepreneur himself, are found to play a more important role (Sleutjes & Schutjens 2012).

From the literature on entrepreneurial networks it is understood that entrepreneurs can obtain different types of resources from their networks. Renzulli and Aldrich (2005) discern the following three types of resources: instrumental support, emotional support and unique information. Arregle et al., (2015) follow this distinction in their study on the family embeddedness of entrepreneurial networks. They discern three ways in which networks can provide benefits for entrepreneurs and their firms. First, entrepreneurs use their networks to access resources, such as financial capital and supplies. This form of support helps entrepreneurs to obtain tangible resources. Second, the networks of entrepreneurs can provide emotional support, advice and encouragement during different phases of

the entrepreneurial process. Family and friends play an important role in this emotional support for the entrepreneur (Arregle et al., 2015; Welter 2011). Last, the network of an entrepreneur can serve as a source of information, allowing them to deal with uncertainty issues and to explore and exploit opportunities.

Much of the research on the networks of entrepreneurs is focused only on the benefits of social capital for business purposes. This is remarkable, as the ideas on entrepreneurial social capital stem from the wider field of social network research. Social capital is seen to have an influence on many different aspects of a person's life. For instance, research has shown that someone can use his or her personal network to gain access to a certain job (Lin & Dumin 1986), to improve performance at work (Burt 2000) and to find a house (Röper , Volker & Flap 2009). Therefore, as stated by Arregle et al., (2015) and Welter (2011), the network of an entrepreneur can be beneficial both for support at the level of the firm (business support) and for private support. This holds in particular for the group of entrepreneurs under research in this chapter. They represent the growing number of firms in Western countries like the UK and the Netherlands that is home-based or is located in close proximity to the home of the entrepreneur. These entrepreneurs are likely to have interaction with their local environment, both for business purposes and for private matters (Mason, Carter & Tagg 2011; Schutjens & Volker 2010). The importance of local ties is also argued by Schutjens and Volker (2010), who found that firms located in a particular neighbourhood benefit from the local social capital. Consequently, entrepreneurs located in residential neighbourhoods experience a blending of their business life with their private life within the local context (Johannisson 2011). Network contacts can fulfil different roles within the network of an entrepreneur, as a contact can be used for both business purposes and private purposes. Not much research has been done on the overlapping roles of a network contact. Mollenhorst, Volker & Flap (2014) pay some attention to overlapping roles in their research on personal networks of Dutch neighbourhood residents, but research on overlap within entrepreneurial networks is scarce.

The network of an entrepreneur can consist of different types of network contacts, ranging from family and friends to business contacts. All these ties can be seen as sources of social capital. In the sociological and entrepreneurship literature a common distinction is made between strong and weak ties (Granovetter 1973; Jack 2005; Lechner & Dowling 2003). Strong ties refer to people with whom the entrepreneur has a close personal relationship, such as family members and friends (Davidsson & Honig 2003; Greve & Salaff 2003; Jack 2005). This close relationship enables easy exchange of resources, especially that of in-depth knowledge. This can be very beneficial for both parties, but it has been argued that these relationships can also form a risk due to the lack of new information resulting from the close-knit relationship. To gain access to new information and new resources weak

ties, those that are not based on a close personal relationship but, for example, are more market-based, are vital (Arregle et al., 2015; Granovetter 1973; Lechner & Dowling 2003).

3.2.2 The dynamic view on networks

As the first perspective proposed by Hoang and Antoncic (2003) views entrepreneurial networks as a source of social capital from which entrepreneurs can tap ideas, resources and knowledge, the second perspective focuses on the network itself and, more explicitly, network development over time. In most studies on network change a rather static research design is used to study network change (see the extensive meta-analysis by Stam, Arzlanian & Elfring 2014). A smaller but increasing number of academic studies points to the dynamic nature of the network itself (Hoang & Antoncic 2003; Jack et al., 2010; Schutjens & Stam, 2003; Slotte-Kock & Coviello, 2010; Stam, Arzlanian & Elfring 2014). This perspective on entrepreneurial networks emphasizes its dynamic character in acknowledging that social networks are constantly changing because entrepreneurs themselves, their network contacts and their preferences can change over time. Research by Mollenhorst, Volker and Flap (2014) on the personal networks of Dutch neighbourhood residents showed high turbulence in these networks over time. These researchers focused on confidants and people who act as practical helpers as the two main roles that network contacts could have. They found that between the two waves (1999/2000 and 2007) only 30 percent of the network contacts kept their role within the networks of the respondents. A large part of the 1999/2000 network disappeared and was replaced by new network contacts (Mollenhorst, Volker & Flap 2014). A similar pattern could occur for the network change of entrepreneurs in residential neighbourhoods. These entrepreneurs in particular combine their professional activities closely with their private life within the local environment, in line with Johannisson's idea on the 'everydayness of entrepreneuring' (Johannisson 2011). With respect to entrepreneurial networks, both the network contacts and their importance to the entrepreneur or the firm can change over time, due to firm-internal forces and firm-external events.

Firm internal forces often result in a changing need for resources of the firm or the entrepreneur over the (firm) life course, which calls for other network contacts (Garnsey 1998; Stam, Arzlanian & Elfring 2014). In their model of network evolution Butler and Hansen (1991) discern three phases, from pre-start-up to start-up towards an ongoing business phase. The resources needed by the entrepreneur differ by phase, so that, for example, opportunity identification is important in the pre-start-up phase and a more focused network in terms of information is important in later phases of the model. To keep up with these changing needs the network of the entrepreneur must change over time (Butler & Hansen 1991). Also, when a firm grows in size, an entrepreneur needs more information on hiring/firing regulations, for which other network contacts are sought and found. In the same vein, entrepreneurs learning from earlier experiences or those who have followed courses

may no longer depend on resources provided by their initial network contacts. In other words, parts of their social capital are exchanged for (new) human capital (Elfring & Hulsink 2007; Lavie 2006; Martinez & Aldrich 2011).

Entrepreneurial networks can also change as a consequence of firm-external events. For instance, network partners may move to other neighbourhoods or areas, thereby potentially losing their significant role in the entrepreneurial network in favour of other network contacts (Knoben 2011). In this sense, relocation of network partners can be a disruptive force in relational links. The private circumstances of the entrepreneur and changes therein, such as personal well-being or career ambitions, can also bring about alterations in entrepreneurial networks. This also goes for the personal household of the entrepreneur and changes in the household life course, for example with respect to income or childcare responsibilities (Jayawarna, Rouse & Kitching 2011). Finally, market developments could impel entrepreneurs to change their networks and networking strategies in order to stay in business or to increase firm performance.

In sharp contrast to the abundant literature on entrepreneurial network effects (the first perspective by Hoang and Antoncic (2003)), only a limited number of studies focused on network dynamics (the second perspective), leaving the time-dimension of networks highly unexplored (Stam, Arzlanian & Elfring 2014). Jack (2010) made a plea for both more qualitative and quantitative empirical studies to extend knowledge on entrepreneurial relations. The lack of empirical studies on network change is strongly related to the longitudinal and detailed network information necessary for measuring such changes, and to the difficulty to avoid reversed-causality issues (Sleutjes & Schutjens 2012). However, over the last decade attempts have been made to address this lack of (empirical) research (Anderson, Drakopoulou Dodd & Jack 2010; Batjargal 2010; Davidsson & Honig 2003; Jack, Drakopolou Dodd & Anderson 2008; Jack et al., 2010; Schutjens & Stam 2003). These, mainly small-scale, longitudinal empirical studies, have shown that both network tie strength, network size and network contact type change over time. A well-known example is the panel study by Davidsson and Honig (2003). They show that over the firm life course, the role of weak ties with business associations or team members takes over the role of strong ties (family, relatives, close friends) for business purposes due to the specific needs of entrepreneurs to become profitable. Schutjens and Stam (2003) found that over a period of six years entrepreneurs annotated their contacts differently, often changing from commercial to social. The final example is the study by Batjargal (2010) on the effect of network skills and strategies of Internet entrepreneurs in the Chinese city of Beijing on the changes in their network over time. Batjargal followed a panel of entrepreneurs over a period of two years and found that networking skills are important to obtain an advantageous position in the network over time (Batjargal 2010).

Notwithstanding recent empirical studies, network dynamics is still an under-researched field of study (Jack 2010). Research with a more theoretical focus does exist. However, these –mostly conceptual – studies often use models to discuss ideal types of network change. Birley and Cromie's model (1990) of network development, for example, consists of two stages, the start-up stage and the stage of firm growth. During the start-up stage mainly social or private-related network contacts dominate the network of the entrepreneur. As the firm moves into the next stage, parts of the social network will be replaced by business contacts in order to keep up with the changing needs of the entrepreneur (Birley & Cromie 1990). Another straightforward and therefore well-cited example is the model by Butler and Hansen (1991) addressed earlier, describing networks developing from a pre-start-up phase to an ongoing business phase, roughly chronologically (Figure 3.1).

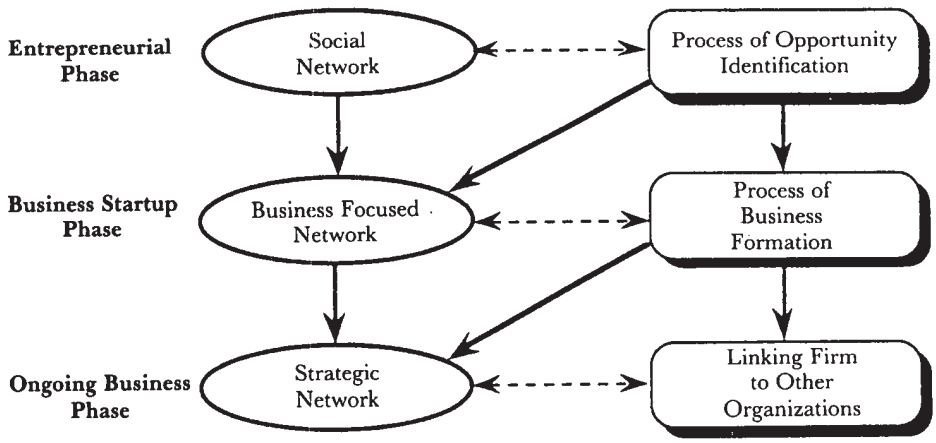

Figure 3.1: The model of entrepreneurial network evolution
Source: Butler and Hansen (1991).

In the first phase the social network (i.e. family and friends) of the entrepreneur is important, as the network contacts provide the entrepreneur with diverse information on business opportunities. But for a business start-up to succeed, the entrepreneurial network needs to be a mix of both old private-related contacts and new business-related contacts. These business-related contacts are important for the entrepreneur in providing information needed to face new challenges in the start-up process. To reach the final phase of firm growth and profit, the entrepreneur needs to shield his/her own firm from competitors by forming ties with competing firms. This strategic network with a mutually dependent relationship is important for the continued survival of the firm (Butler & Hansen 1991).

The model of Butler and Hansen (1991) implies that every entrepreneur has to go through the same steps to get to the final, ongoing business phase, and that their networks change accordingly (Butler & Hansen 1991; Schutjens & Stam 2003). The question is whether

this is really the case. Do entrepreneurial networks evolve in the same, orderly way, or do different, more chaotic forms exist? By empirically measuring network change over a period of six years, we hope to give a more realistic view of network dynamics. As we approach existing entrepreneurs (and in this sense necessarily skip the pre-start-up phase of Butler and Hansen's model), we explore only the network changes of businesses that are either in the start-up phase or the ongoing business phase in 2008 (in the first wave). In contrast to Butler and Hansen (1991), we study different dimensions in the evolution of entrepreneurial networks, also paying attention to the meaning of local and non-local ties and the potential overlap in private-related and business-related network contacts.

3.3 METHODS AND DATA

3.3.1 The Survey on the Social Networks of Entrepreneurs

In this study we use data from two waves of The Survey on the Social Networks of Entrepreneurs, collected in 2008 and 2014 (referred to as SSNE1 and SSNE2 respectively). This study primarily focuses on networks, performance and local involvement of small and medium-sized entrepreneurs in Dutch residential neighbourhoods. The data collection follows the design of a larger academic survey on the networks or inhabitants of Dutch neighbourhoods in 2000 (Survey on the Social Networks of the Dutch, SSND). In this 2000 survey, a sample of 40 out of the approximately 500 municipalities in the Netherlands was drawn, in both urban and rural areas (see Figure 3.2). For each municipality, four neighbourhoods were randomly selected (in one case five neighbourhoods were selected). The sampled neighbourhoods can be defined as residential, as the number of inhabitants and building density were taken into account when drawing the sample. Five-digit postal code districts are used to define the neighbourhoods. This demarcation resembles the route of postal workers and mostly involve areas without physical barriers (Mollenhorst, Volker & Schutjens 2009; Sleutjes & Schutjens 2012). On average, a five-digit postal code area contains 230 addresses (Mollenhorst, Volker & Schutjens 2009; Sleutjes & Schutjens 2012).

In 2008, in each of the 161 sampled neighbourhoods up to 12 private firms (if present) were contacted by telephone to determine whether the owner or entrepreneur also lived in or near the neighbourhood , in order to explore the interdependency of entrepreneurs, firms and local social and physical interaction at the neighbourhood level (as this was the aim of the original study). As a result, a firm was included in the sample only if the entrepreneur lived at the same address as or within ten minutes walking distance from his or her firm (Sleutjes & Schutjens 2012). The first wave of this study (SSNE1) contains information on 385 firms and their entrepreneurs, collected in 2008 in 145 Dutch residential neighbourhoods. In 2014, six years after the first wave, all 385 respondents were contacted to

participate in a second wave (SSNE2), of whom 214 responded positively. This resulted in data on two points in time (2008 and 2014) of the networks of 214 entrepreneurs in over 140 Dutch residential neighbourhoods.

Figure 3.2: The 40 municipalities included in The Survey on the Social Networks of Entrepreneurs (SSNE)
Source: Survey on Social Networks of the Dutch (SSND); see Mollenhorst, Volker & Schutjens (2009).

3.3.2 Network Delineation

In both waves of the SSNE, all entrepreneurs were interviewed about various kinds of personal and professional relationships, using name-generating questions. By using this method, the egocentric networks of the entrepreneurs can be constructed, giving insights into the composition and density of the network (Arregle et al., 2015; Burt 1992).

A large part of existing research on the networks of entrepreneurs focuses on the core business discussion network (Arregle et al., 2015; Renzulli & Aldrich 2005). Here, we focus on both the business and the private networks of the entrepreneurs. With the use of four name-generating questions, we have acquired the network contacts that are used for private purposes and those that serve business purposes. In the questionnaire, entrepreneurs were allowed to give the initials of persons they had already mentioned in response to previous name-generating questions, and could add a maximum of five new persons at each of the following four name-generating questions.

The first name-generating question regarding private purposes addressed the so-called 'core discussion network'. The question reads: 'With whom did you discuss important personal matters during the last six months?' (cf. Bailey & Marsden 1999; Burt 1984; Marsden 1987). Next to these emotional support contacts, we also look at more practical means of help. For that reason, we asked, 'If you are doing an odd job at home and you need someone to give a hand, e.g., to carry furniture or to hold a ladder, whom do you ask for help?' Alters who were mentioned at one or both of these questions are seen as part of the respondent's network used for private purposes. Regarding business purposes, similar questions related to the business part of the entrepreneurial network were asked. The business-related core discussion network was constituted by the answer to the question: 'With whom did you discuss important matters regarding your firm and its development during the last six months?' (cf. Bailey & Marsden 1999; Burt 1984; Marsden 1987). Practical help was addressed by the question: 'If you are doing odd jobs regarding the firm and you need someone to give a hand, e.g., sending invoices or cleaning up, whom do you ask for help?' Again, a network tie that was mentioned at one or both of the business-related questions is understood to belong to the business network of the entrepreneur.

Indeed, network contacts can fulfil a role within both the private and the business network. As mentioned before, we are particularly interested in this type of role overlap in entrepreneurial networks and therefore discuss this below. For reasons of simplicity, in the following sections we use (a) the term 'private contacts' to refer to network contacts with whom important personal matters are discussed and/or who can be asked for practical support in or around the house, (b) the term 'business contacts' to refer to network contacts with whom business-related matters are discussed and/or who can be asked for

business-related practical support, (c) the term 'contacts for emotional support' to refer to network contacts with whom personal and/or business-related matters are discussed, and (d) the term 'contacts for practical support' to refer to network contacts who can be asked for private-related and/or business-related practical support.

3.3.3 Measurements

Dependent variables

The network size and three dimensions of the network composition are used as dependent variables in our research. The first dependent variable is the change in entrepreneurial network size between the two waves (i.e. 2008 and 2014). Both the network size in 2008 and 2014, and the network change over time, are measured as the total number of network contacts for each respondent (every alter is counted once, irrespective of their different roles within the network).

After having collected the names or initials of all these network contacts, various name-interpreting questions were asked with regard to each of these alters. Among other things, we asked for the type of relationship between the respondent and the alter, and where the alter resides. In the empirical analyses, the following three dimensions of the entrepreneurial network composition are taken into account (see Arregle et al., 2015; Johannisson 2011; Schutjens & Volker 2010; Welter 2011).

First, we look at family versus non-family network contacts. In the survey, 25 types of relationships between the entrepreneur and their alters are discerned. This list ranges from romantic partner to colleague and neighbour.[6] An alter is considered 'a family contact' when he/she is mentioned as romantic partner, parent, child, parent-in-law, sibling or other family member (irrespective of whether he or she is living in the same house). The number of family contacts in a network is often seen as an indicator of the strength of ties, but a family member is not necessarily a strong tie. Therefore we prefer to use the family versus non-family distinction when giving an insight into the composition of the social networks of the entrepreneurs.

6 Answer categories are 'romantic partner, living in', 'romantic partner, not living in', 'former romantic partner', 'parent, living in', 'parent, not living in', 'child, living in', 'child, not living in', 'parent in-law, living in', 'parent in-law, not living in', 'sibling, living in', 'sibling, not living in', 'other relative, living in', 'other relative, not living in', 'friend', 'boss', 'direct colleague', 'other colleague', 'former colleague', 'someone who works for you', 'someone from the neighborhood', 'next-door neighbor', 'former neighbor', 'co-member of a club or association', 'acquaintance' or 'other'.

Second, local and non-local network contacts are discerned. As discussed in the previous section, the neighbourhood level may be the appropriate scale for social capital entrepreneurs to tap into, in particular for small and medium-sized entrepreneurs whose firms are located in – and who themselves are living in or close to – these residential neighbourhoods. Network contacts are considered 'local' if they (or their firm) are located within a 1 km range from the respondent, with household members excluded (cf. Sleutjes & Schutjens 2012).

Third, role overlap within the entrepreneurial networks is addressed. If the private and professional lives of local entrepreneurs are to some extent intertwined, it is likely that there will be some overlap between the network parts used for private purposes and the parts of the entrepreneurial networks used for business purposes. In this study, we consider overlapping network contacts as those network contacts who are used for both private and business purposes. This means that this network contact is mentioned in response to at least one question concerning the private purposes and at least one question concerning the business purposes of the social network of an entrepreneur.

Independent variables

Our multivariate analyses on the size and composition of entrepreneurial networks, as well as changes in both size and composition, include several independent variables. In every model the age of the respondent, the firm's age and the economic sector (serving local or non-local markets) are included. From the literature on social networks it is understood that the age of the entrepreneur is related to network size and change over time, as it is an indicator of the time available to form a network. The age of the firm is used to gain insight into the differences between firms at different stages of the life cycle, which is also an important criterion in Butler and Hansen's original model (1991). Both the age of the firm and of the entrepreneur are divided by ten years, after which we centred these variables around the mean. At the level of the firm's business activities, we distinguish between firms that are locally oriented and non-locally oriented. Firms active within, for example, retail, the catering industry, personal services and private education serve the local market, whereas sectors such as business services and manufacturing are seen as non-locally oriented. This distinction is important as the networks of firms that have to rely on the local environment for customers may be different from firms that have a broader market orientation (Sleutjes & Schutjens 2012).

Information on relocation to outside the neighbourhood since 2008 is also included in the model, whereby we distinguish between firm relocation and/or residential relocation of the entrepreneurs themselves. This dummy variable uses the category 'no firm relocation' as the reference category. Both firm and personal relocation can cause changes in the

network of an entrepreneur. Firm relocation is seen as a firm-internal force and residential relocation can be thought of as a force external to the firm.

Finally, when estimating changes in network size and composition between 2008 and 2014, we take network size in 2008 into account.

Analytical strategy

In the empirical analysis we used OLS regression models to explore network change in the period between 2008 and 2014. A significance level of 95 percent ($p < 0.05$) is applied to all models, but we decided to include the parameter effects significant at a 90 percent significance level also in order to give an exhaustive overview of the findings. In Tables 3.1, 3.2 and 3.3, network change was measured in total number of network contacts. Additional analyses measuring the proportional network change can be found in Appendix Tables 3A.1 and 3A.2.

3.4 FINDINGS

Table 3.1 and Figure 3.1 present descriptive results on the size and composition of the networks of all entrepreneurs who participated in both waves of our survey, who answered the complete network module in our questionnaire, and who were still entrepreneurs in 2014. Of all 214 respondents who participated in both waves, 14 respondents were no longer entrepreneurs in 2014, while another 3 respondents did not (correctly) answer all four network questions. This implies that the results presented in this section are based on a set of 197 entrepreneurs.

Table 3.1 shows that in 2014, the entrepreneurs on average mention 4.05 network contacts with whom they discuss important matters (regarding personal and/or business matters) and/or whom they could ask for practical support (for private and/or business purposes). An average of 3.08 of these network contacts are private-related contacts (providing emotional and/or practical support), while 2.03 of them are business-related contacts. Indeed, this implies that 1.06 network contacts on average are mentioned in response to at least one private-related name-generating question and at least one business-related name-generating question.

We also see that an average number of 1.66 family contacts are mentioned in 2014. Furthermore, 1.20 network contacts live within a range of 1 km from the respondent (household members excluded).

Table 3.1: Network changes between 2008 and 2014 (average, standard deviation in parentheses)

	2008	2014	Change
Network size	3.79 (2.07)	4.05 (2.08)	+ 0.26
Number of private-related contacts[1]	2.94 (1.76)	3.08 (1.70)	+ 0.13
Percentage of private-related contacts	0.78 (0.23)	0.77 (0.24)	– 0.01
Number of business-related contacts[2]	1.83 (1.23)	2.03 (1.33)	+ 0.20 †
Percentage of business-related contacts	0.50 (0.29)	0.53 (0.29)	+ 0.02
Number of family contacts in network[3]	1.70 (1.16)	1.66 (1.07)	– 0.04
Percentage of family contacts in network	0.49 (0.31)	0.45 (0.29)	– 0.03 †
Number of local network ties in network[4]	0.91 (1.09)	1.20 (1.27)	+ 0.28 **
Percentage of local network ties in network	0.21 (0.24)	0.28 (0.25)	+ 0.06 **
Number of contacts for emotional support[5]	2.59 (1.60)	2.76 (1.55)	+ 0.16
Percentage of contacts for emotional support	0.69 (0.25)	0.69 (0.23)	+ 0.00
Number of contacts for practical support[6]	1.90 (1.33)	2.18 (1.43)	+ 0.27 *
Percentage of contacts for practical support	0.50 (0.29)	0.56 (0.26)	+ 0.05 *
Number of private emotional support contacts	1.82 (1.37)	1.99 (1.32)	+ 0.16
Number of business emotional support contacts	1.49 (1.03)	1.62 (1.03)	+ 0.13
Number of private practical support contacts	1.58 (1.19)	1.68 (1.12)	+ 0.11
Number of business practical support contacts	0.61 (0.80)	0.83 (1.09)	+ 0.22 **
Number of overlap business–private-related contacts[7]	0.98 (0.94)	1.06 (0.87)	+ 0.07
Percentage of overlap business–private-related contacts	0.30 (0.32)	0.31 (0.28)	+ 0.00

Notes:

[1] Private-related contacts were mentioned in response to at least one of the questions concerning either private emotional support or private practical support.

[2] Business-related contacts were mentioned in response to at least one of the questions concerning either business emotional support or business practical support.

[3] Family contacts = including partner living in the same house and in-laws. Missing values = no family members.

[4] Local = person is located within a 1 km range of the respondent, excluding housemates. Contacts for practical support were mentioned in response to at least one or both questions concerning either private practical support or business practical support.

[5] Contacts for emotional support were mentioned in response to at least one of the questions concerning either private emotional support or business emotional support.

[6]

[7] Overlap = network contact is mentioned in response to at least one question concerning the private purposes and at least one question concerning the business purposes of the entrepreneurial network.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: SSNE1, 2008 and SSNE2, 2014.

As shown in Table 3.1, there is no significant change in the average size of the networks of the respondents between 2008 and 2014. But regarding network composition change, two findings stand out. First, the average number of contacts that may provide practical help has grown significantly, from 1.90 in 2008 to 2.18 in 2014. This growth is apparent in the category practical help for business purposes in particular, as this number increased significantly from 0.61 to 0.83 on average. Second, the average number of local network contacts has increased as well. While in 2008 the entrepreneurs reported 0.91 local network contacts on average, this number increased substantially to 1.20 in 2014. This outcome, together with the significant rise in the proportion of local network ties (see Appendix Table 3A.2), indicates that over time the neighbourhood became a more important arena for network contacts of the entrepreneurs.

Although Table 3.1 indicates that the average network size of the entrepreneurs did not change significantly between 2008 and 2014, neither the size nor the composition of the networks of individual entrepreneurs remained stable over time. The histogram as presented in Figure 3.3 shows that, while 35 entrepreneurs reported the same number of network contacts during both interviews, most entrepreneurs added or removed one or more contacts to or from their network. On top of that, initial network contacts may have been replaced by other contacts, which means that also among those whose network size remained stable in terms of the total number of ties reported, network contact changes occurred.[7]

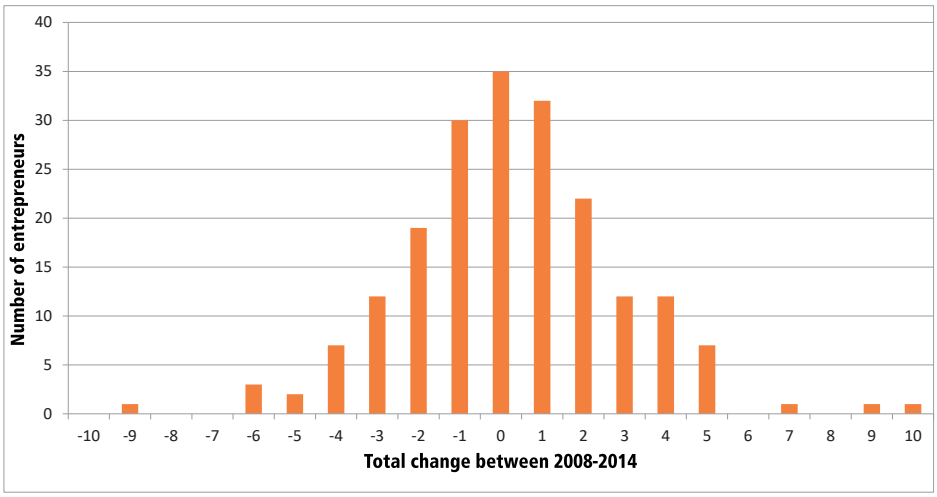

Figure 3.3: Changes in the total number of network contacts between 2008 and 2014
Source: SSNE1, 2008 and SSNE2, 2014.

7 An analysis and interpretation of such changes on the relationship level, however, is beyond the scope of this chapter.

Altogether, the aforementioned results provide sufficient reason to zoom in on the changes that have taken place between 2008 and 2014 in the size and composition of the networks of entrepreneurs, and to explore the factors related to these changes. Table 3.3 presents results of a number of regression models on network changes, controlling for both the initial number of network contacts (i.e. mentioned in 2008) and the initial number of specific types of network contacts. However, before analysing network changes, it is crucial to understand the network structure in 2008. We analyse the factors related to the initial size and composition of entrepreneurial networks in Table 3.2. We find no evidence that age of the entrepreneur, firm age or local firm orientation relate to the overall network size in 2008 (Table 3.2). In 2008 however, network size (i.e. the total number of network contacts) does relate significantly and positively to all components of the entrepreneurial networks analysed. This makes sense, as entrepreneurs who have a larger network are more likely to have more different types of network ties in their network. Additional analyses, as presented in Appendix Table 3A.1, show that the larger the total network, the larger the proportion of local contacts in the network and the smaller the proportion of family contacts and business-related contacts in the network. As can be expected, the proportion of network contacts with 'role overlap' (i.e. those who are mentioned for private as well as business purposes) is smaller among entrepreneurs with larger networks (see Appendix Table 3A.1). This suggests that those with relatively small networks to a certain extent compensate for a potential lower amount of available support with an increase in role overlap. Next to network size, the other factors included in the analysis only show that older entrepreneurs reported a relatively small number of network contacts for business purposes and relatively many network contacts for private purposes.

Table 3.3 shows that the initial total network size significantly and negatively relates to the change in network size between 2008 and 2014. In other words, small initial networks are more likely to expand than larger initial networks, while entrepreneurs who had a relatively large network in 2008 are most likely to have experienced a downsizing of their network. Network size is also significantly associated with firm age, as older firms experienced a slightly stronger decrease in the total number of network contacts between 2008 and 2014 than younger firms.

Regarding changes in network composition, each model in Table 3.3 shows that the initial number of a particular type of contact is significantly and negatively associated with a change in the number of that particular type. Only with regard to family contacts we see an additional effect of the overall number of network contacts, which means that over a six-year period, a decrease in the number of family contacts in the network is more likely, not only for entrepreneurs who had relatively many family contacts in their network, but even more so for those who had a larger network in 2008. Additional analyses on propor-

Table 3.2: Network size and network composition in 2008

		Network composition						
	Network size	Number of contacts for emotional support	Number of contacts for practical support	Number of business-related contacts	Number of private-related contacts	Number of local network contacts	Number of family contacts	Number of overlapping contacts[a]
Total number of network contacts		0.65 ***	0.47 ***	0.39 ***	0.75 ***	0.30 ***	0.28 ***	0.14 ***
Age of the entrepreneur (per 10 years)[b]	–0.10	–0.07	0.00	–0.23 ***	0.12 *	0.00	–0.13 †	–0.10
Age of the firm (per 10 years) [b]	–0.03	–0.05 †	0.00	0.04	–0.04	0.03	0.06 †	0.00
Locally orientated firm[c]	–0.31	0.05	0.22	0.07	0.09	–0.11	0.15	0.16
Constant	3.89 ***	0.07	0.03	0.32 ***	0.04	–0.20	0.55 ***	0.36 *
Adj. R^2	–0.00	0.73	0.52	0.45	0.78	0.33	0.27	0.10
N	197	197	197	197	197	197	197	197

Notes:

[a] Overlapping contacts are ties that are both business-related and private-related contacts.

[b] Variable centred around the mean.

[c] Locally orientated firms: firms active in retail and catering industry, personal services and private education.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: SSNE1, 2008 and SSNE2, 2014.

Table 3.3: Change in network size and network composition between 2008 and 2014

		Network composition						
	Change in network size	Change in number of contacts for emotional support	Change in number of contacts for practical support	Change in number of business-related contacts	Change in number of private-related contacts	Change in number of local network contacts	Change in number of family contacts	Change in number of overlapping contacts [a]
Number of network contacts (2008)	–0.82 ***						–0.09 *	
Number of contacts for emotional support (2008)		–0.81 ***						
Number of contacts for practical support (2008)			–0.89 ***					
Number of business-related contacts (2008)				–0.71 ***				
Number of private-related contacts (2008)					–0.87 ***			
Number of local network contacts (2008)						–0.72 ***		
Number of family contacts (2008)							–0.62 ***	
Number of overlapping contacts (2008)								–0.83 ***
Age of the entrepreneur (per 10 years)[b]	–0.05	–0.08	–0.00	–0.22 *	–0.00	0.05	0.01	–0.19 **
Age of the firm (per 10 years) [b]	–0.15 *	–0.10 †	–0.03	–0.02	–0.10 †	–0.04	–0.00	0.02

Table 3.3: Change in network size and network composition between 2008 and 2014 (*continued*)

		Network composition						
	Change in network size	Change in number of contacts for emotional support	Change in number of contacts for practical support	Change in number of business-related contacts	Change in number of private-related contacts	Change in number of local network contacts	Change in number of family contacts	Change in number of overlapping contacts [a]
Move since 2008:								
No move nor relocation	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Only residential move	–0.36	0.01	–0.86	–0.45	–0.11	–0.68	0.35	–0.20
Only firm relocation	–0.22	0.57	–0.31	–0.39	0.12	–0.37	–0.07	–0.05
Both residential move and firm relocation	0.80	0.06	1.03 *	0.45	0.50	0.13	0.47	0.17
Locally orientated firm[c]	–0.59 †	–0.14	–0.45 *	0.02	–0.61 *	–0.26	–0.27 †	0.00
Constant	3.59 ***	2.30 ***	2.11 ***	1.50 ***	2.90 ***	1.06 *	1.46 **	0.89 ***
Adj. R^2	0.41	0.40	0.43	0.30	0.46	0.28	0.41	0.45
N	197	197	197	197	197	197	197	197

Notes:
[a] Overlapping contacts are ties that are both business-related and private-related.
[b] Variable centred around the mean.
[c] Locally orientated firms: firms active in retail & catering industry, personal services and private education.
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Source : SSNE1, 2008 and SSNE2, 2014.

tions of networks instead of number of network contacts yield the same results (Appendix Table 3A.2).

Furthermore, Table 3.3 shows that the effects of the independent variables differ per model. Entrepreneurs who both relocated their firm and moved house privately reported an increase in the number of contacts for practical support compared to entrepreneurs who did not relocate privately nor relocated the firm. This result seems to make sense as a relocation usually involves a great deal of work and therefore practical help is often needed and asked for.

Next, we find a significant negative association between the age of the entrepreneur and a change in the number of business-related contacts. This implies that, while Table 3.2 already showed that older entrepreneurs rely less on business-related contacts in 2008, they also reported a relatively large decrease in business-related contacts between 2008 and 2014. Older entrepreneurs might have gathered enough information over the course of their life to be less dependent on help for business purposes.

Compared to firms serving non-local markets, firms active in locally oriented sectors are more likely to have reported decreasing numbers of both network contacts for practical support and private-related network contacts. In line with this, the additional analyses (see Appendix Table 3A.2) show that for these locally orientated firms, the proportion of contacts for emotional support and/or for business-related purposes significantly increased between 2008 and 2014.

Moreover, we find a significant negative association between the age of the entrepreneur and the change in role overlap in the network. Older entrepreneurs are thus more likely to report a decrease in role overlap than younger entrepreneurs. Finally, additional analyses (Appendix Table 3A.2) show that the increase in the proportion of network overlap is smaller when entrepreneurs already had many overlapping network contacts in 2008, and, beyond that, is especially substantial for entrepreneurs who had a large initial network with a great deal of overlap.

3.5 DISCUSSION AND CONCLUSION

The main contribution of this chapter to the existing literature is the dynamic perspective adopted in studying social networks. Although promising efforts have recently been made, research on entrepreneurial networks still suffers from a lack of longitudinal studies. This is closely related to existing conceptual models of network development in which network

changes are often viewed as a straightforward and fixed development consisting of consecutive stages. To explore whether entrepreneurial networks in reality develop in such an orderly way, we have measured changes in the networks of individual Dutch entrepreneurs between 2008 and 2014.

First, we studied changes within the entrepreneurial networks as a whole. By looking at changes in the network size, we were able to measure the stability of the entrepreneurial networks over time. The panel of entrepreneurs did not show a significant change in average network size between 2008 and 2014 (3.79 and 4.05 respectively). But a detailed analysis at the entrepreneurial level showed significant network size change over time, as entrepreneurs with relatively large networks in 2008 experienced a downsizing of their networks, whereas small initial networks were more likely to expand over time. Older firms experienced a stronger decrease in terms of network size over time than younger firms, which indicates an overall convergence in network size.

Although, at first sight, network size seemed to stay quite stable, we found clear changes in network composition over the period studied. We explored three dimensions of network composition. The relevance of including a local dimension stems from our specific panel structure, as entrepreneurs of firms located in residential neighbourhoods are likely to experience a blending of their private and business lives (cf. Johannisson's claim of 'the everydayness of entrepreneuring'). Regarding this local network dimension, we found that on average, local network ties have become more important over time than non-local networks. This suggests that the local tissue is strengthening over time, as entrepreneurs increasingly find network contacts within their own neighbourhood. Interestingly, we found that the local networks of entrepreneurs with firms targeting local markets changed in the same way as entrepreneurial networks with non-local firms: it seems that locally orientated firms did not rely more on local contacts than non-locally orientated firms.

The number of family contacts within the entrepreneurial networks is also taken into account as a specific dimension, as family members tend to be important network contacts and can be seen as an indication for the use of strong ties within a network (Arregle et al., 2015). We could not discern significant changes in the number of family contacts within the entrepreneurial networks. As such, there did not seem to be a shift from strong to weak ties over time, which is in line with the findings of Schutjens and Stam (2003).

The third dimension concerns role overlap within the network, as an entrepreneur can use his or her social capital to obtain valuable resources such as emotional support, information and tangible resources for business purposes, private purposes, or both. The entrepreneurs mentioned on average 4.0 network contacts in 2014, of which 3.1 were for

private purposes and 2.2 for business purposes. This indicates that role overlap is present within entrepreneurial networks as 1.1 network contact on average gives support for both private and business purposes. Role overlap is found to be more important for entrepreneurs with a small network than for entrepreneurs who have a larger network, which is to be expected as the former group had to compensate for their limited network size by getting support from the same people for different purposes. At the entrepreneurial level, we found that the role overlap between 2008 and 2014 decreased for older entrepreneurs and for entrepreneurs who already had a great deal of overlap in their networks.

3.5.1 Limitations

The study presented in this chapter has some limitations. First, the focus of our study is on the networks of entrepreneurs whose firms are located in residential neighbourhoods in the Netherlands. Our findings are therefore valid within residential districts in the Dutch context, which makes generalization of the outcomes difficult. This explicitly goes for our results on the local dimension of networks, as we analysed only entrepreneurs who are themselves also located in these residential neighbourhoods. It can be assumed that entrepreneurs located in or in close proximity to their homes have a relatively strong relationship with the local environment, which may be different for entrepreneurs who live further from their firm location.

Second, our data collection took place between 2007 and 2014, a period characterized by economic recession in the Western world. This economic situation could also have influenced the outcomes of our study, as, in difficult times, entrepreneurs may have to rely on more or different network members. Only from a third wave of the panel study, hopefully after this economic dip, can we learn whether, and, if so, to what extent, this recession has influenced the entrepreneurial networks and therefore our results.

Finally, although the explorative character of this chapter has yielded interesting initial descriptions of the changes in network size and network composition and a first exploration of the factors involved in these changes, there is a need for additional analyses resulting in a thorough insight in the mechanisms behind network change.

3.5.2 Options for Future Research

Of course, the limitations described above are the exciting windows of opportunity in our future research. Our extensive dataset contains rich information on 214 entrepreneurs in 2008 and 2014, but also on their respective network contacts (alters), the quality of every relationship between the entrepreneur and alter, and even on the relationships between the main alters in the network. As such, this explorative chapter has only touched upon the mere surface of the huge amount of network information available. Furthermore, the

great variety in the change of network size depicted in the bar diagram (Figure 3.3) already suggests quite turbulent networks at the entrepreneurial level. Although still untapped, detailed information is available on new, changing and exiting network contacts and their respective importance in the network of entrepreneurs. This information can help to answer remaining questions, such as: Which ties remain in the network? And which ones are cut – and why? Jack, Drakopolou Dodd & Anderson (2008), for instance, found that firms are reluctant to cut their older ties over time and that they often complement older ties with new ones, with whom they have already had some contact in the past (pre-tested ties). Finally, there is still more data available from the SSNE on a variety of topics, such as the relationships of the entrepreneurs with business associates, private neighbours and business neighbours. Exploring these data in future work and thereby unravelling the changing networks of entrepreneurs will shed more and brighter light on the dynamics of social capital – a person's and an entrepreneur's crucial asset in our increasingly interconnected and relational world.

Table 3A.1: Network size and network composition in 2008 (proportions)

		Network composition						
	Network size	Proportion of contacts for emotional support	Proportion of contacts for practical support	Proportion of business related contacts	Proportion of private related contacts	Proportion of local network contacts	Proportion of family contacts	Proportion of overlapping contacts[a]
Total number of network contacts (2008)		–0.00	–0.00	–0.02 *	–0.00	0.02 ***	–0.04 ***	–0.04 ***
Age of the entrepreneur (per 10 years)[b]	–0.10	–0.02	0.01	–0.04 *	0.03 †	0.00	–0.01	–0.02
Age of the firm (per 10 years)[b]	–0.03	–0.00	0.00	0.01	–0.00	0.01	0.01 †	0.00
Locally orientated firm[c]	–0.31	–0.00	0.03	0.01	–0.00	0.00	–0.00	0.02
Constant	3.89 ***	0.73 ***	0.51 ***	0.57 ***	0.82 ***	0.11	0.66 ***	0.46 ***
Adj. R^2	–0.00	–0.00	–0.01	0.02	0.00	0.04	0.07	0.06
N	197	197	197	197	197	197	197	197

Notes:

[a] Overlapping contacts are ties that are both business-related and private-related.

[b] Variable centred around the mean.

[c] Locally orientated firms: firms active in retail & catering industry, personal services and private education.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: SSNE1, 2008 and SSNE2, 2014.

Table 3A.2: Change in network size and network composition between 2008 and 2014 (proportion)

		Network composition						
	Change in network size	Change in proportion of contacts for emotional support	Change in proportion of contacts for practical support	Change in proportion of business related contacts	Change in proportion of private related contacts	Change in proportion of local network contacts	Change in proportion of family contacts	Change in proportion of overlapping contacts[a]
Number of network contacts (2008)	–0.82 ***	0.00	–0.01 †	0.00	–0.01	0.00	0.00	0.02 †
Proportion of contacts for emotional support (2008)		–0.79 ***						
Proportion of contacts for practical support (2008)			–0.81 ***					
Proportion of business related contacts (2008)				–0.80 ***				
Proportion of private related contacts (2008)					–0.91 ***			
Proportion of local network contacts (2008)						–0.75 ***		
Proportion of family contacts (2008)							–0.58 ***	
Proportion of overlapping contacts (2008)								–0.51 ***
Age of the entrepreneur (per 10 years)[b]								–0.10 **
Age of the firm (per 10 years)[b]	–0.05	–0.02	0.02	–0.06 **	0.01	0.03	0.00	–0.04 *

Table 3A.2: Change in network size and network composition between 2008 and 2014 (proportion) (*continued*)

		Network composition						
	Change in network size	Change in proportion of contacts for emotional support	Change in proportion of contacts for practical support	Change in proportion of business related contacts	Change in proportion of private related contacts	Change in proportion of local network contacts	Change in proportion of family contacts	Change in proportion of overlapping contacts[a]
Move since 2008:	–0.15 *	–0.00	0.01	0.01	0.00	0.00	0.01 *	0.01 †
No move								
Only residential move	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Only firm move	–0.36	0.03	–0.19 †	–0.07	0.04	–0.16	0.11	–0.01
Both residential and firm move	–0.22	0.16	–0.07	–0.04	0.02	–0.11	0.01	–0.04
Locally orientated firm[c]	0.80	–0.10	0.06	–0.03	–0.00	–0.00	0.02	–0.04
	–0.59 †	0.08 *	–0.06	0.11 **	–0.06 †	–0.03	–0.00	0.07 †
Constant	3.59 ***	0.52 ***	0.55 ***	0.38 ***	0.76 ***	0.23 ***	0.24	0.15 ***
Adj. R^2	0.41	0.44	0.47	0.42	0.42	0.34	0.30	0.46
N	197	197	197	197	197	197	197	197

Notes:

a) [a] Overlapping contacts are ties that are both business-related and private-related contacts.

[b] Variable centred around the mean.

b) [c] Locally orientated firms: firms active in retail & catering industry, personal services and private education.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: SSNE1, 2008 and SSNE2, 2014.

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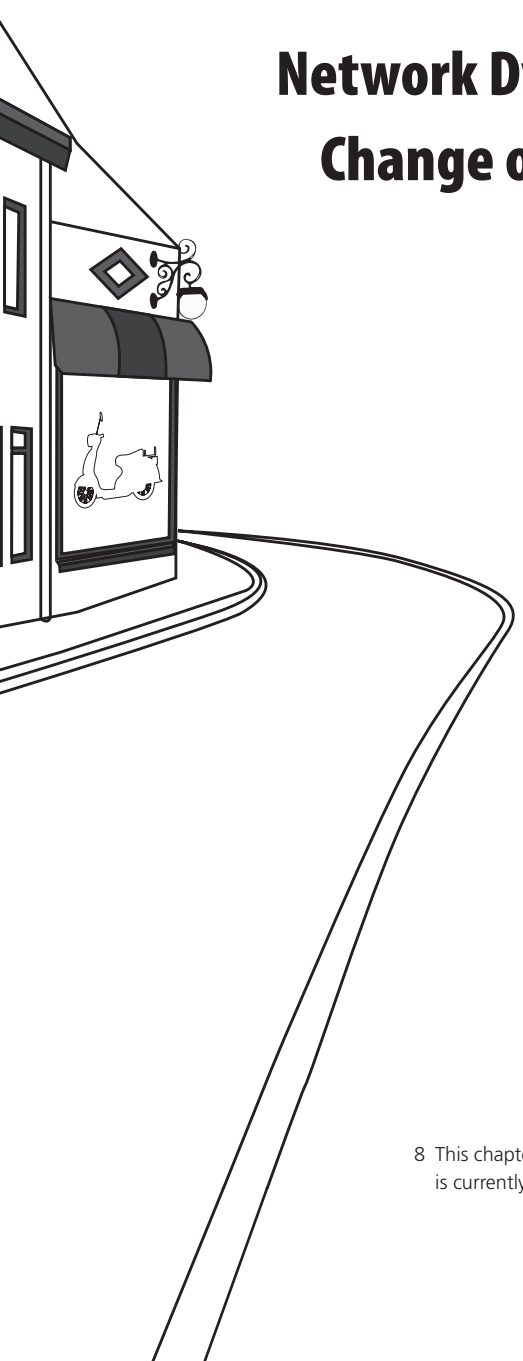
Chapter 4



Network Dynamics and Performance Change of Dutch Micro-businesses[8]

8 This chapter is co-authored by Frank van Oort and Gerald Mollenhorst. The paper is currently under review at an international journal.

4.1 INTRODUCTION

Under today's dynamic economic circumstances, which are characterized by shorter product life cycles and uncertain market access, having the right network connections has become increasingly indispensable for firms to be resilient and successfully conduct business. Business networks can be seen as strategic firm instruments that can be used and changed to improve firm performance and firm survival (Burt 2011; Stam, Arzlanian & Elfring 2014; Watson 2007; Westlund & Adam 2010). However, network *change* has received little attention in the literature, even though it may be a prime prerequisite for firm adaptation and performance. Larger and medium-sized firms are able to efficiently organize their networks, making these firms capable of knowledge absorption and leading them to become resilient to specific or general shocks. However, micro-businesses, which are defined as businesses with zero to nine employees (OECD 2005), often lack the critical mass required to create such internalizing business structures (Devins et al., 2005). Being connected to other firms, customers and entrepreneurs can be vital to such firms' development and even survival, particularly because such connections provide access to resources and facilitate firms' internal learning (Hayter 2013). This study provides an in-depth understanding of this 'liability of smallness' argument to determine the role of business network change in firms' resilience and performance (Brüderl & Schussler 1990).

Workforces are evolving across the global business landscape. Micro-businesses and small-scale or self-employed firms are widely recognized as having an important impact on the performance of modern economies, helping them to be more flexible, agile, entrepreneurial and innovative (Burke 2015). Firm networks and performance are generally studied in cross-sectional empirical frameworks, which is a limited approach to address the impact of these dynamic economic structures that are important for firms, especially micro-businesses, to thrive (Hoang & Yi 2015; Jack 2010). Moreover, the notion that the relationship is not unidirectional but reciprocal, with firm performance also having an impact on the network of a firm, is rarely taken into account (see Robson and Bennett (2000) as an exception). Research on micro-businesses is therefore hampered by insufficient insight into the impact of *changing* networks on firm performance *dynamics* and vice versa (Gherhes et al., 2016; Stam, Arzlanian & Elfring 2014). This chapter examines business networks and entrepreneurial performance in relation to each other, bringing insights from the management literature on human capital and learning. Potential accelerators, enablers or moderators of learning are identified (Rauch et al., 2009). These are indicators that reflect the potential absorptive capacity[9] of entrepreneurs ("the ability of an entrepreneur to understand new

9 Potential absorptive capacity relates to opportunities or preconditions for learning, while realized absorptive capacity focuses on the outcomes of actual learning.

knowledge, recognize its value, and subsequently commercialize it", Qian & Acs, 2013, p. 191) that helps them internalize relevant information from network contacts and apply it to improve their firm's performance. This chapter tests whether entrepreneurial learning capacities, measured in terms of human capital characteristics, enable and accelerate firm performance in interaction with business network change (Liao, Welsch & Stoica 2003; Qian & Acs 2013; Santarelli & Tran 2013).

The focus here is on micro-firms that are located in residential neighbourhoods and whose owners also live in the same or nearby areas. This is of particular interest for this chapter because these locations often contain pioneering self-employed and flexible modes of organization that increasingly create employment and innovation in the urban economy (Hutton 2016; Reijonen & Komppula 2007). Residential neighbourhoods are good contexts for studying micro-firms and their network embeddedness, as they reflect the daily urban environments where micro-firms have many of their social dealings and learning interactions (Devins et al., 2005; Schutjens & Stam 2003; Sleutjes, Van Oort & Schutjens 2012). Therefore, this research design is well suited to an analysis of how social business networks drive the performance of these neighbourhood-based micro-businesses, and vice versa.

To test the hypotheses on the coevolution of changes in networks and the performance of micro-firms, data are used from a set of 165 entrepreneurs located in Dutch residential neighbourhoods who participated in the Survey on the Social Networks of Entrepreneurs (SSNE) in 2008 and 2014. Two waves of data are used to identify the impacts of network change vis-à-vis firm performance change, while taking into account learning capacities and other relevant factors. By applying multilevel mixed-effects models and fixed-effects regression models side-by-side, the different characteristics of the data on network change and firm performance are exploited by the two estimation methods.

The next section discusses the importance of network contacts and social capital for businesses in general and for micro-businesses in particular. Furthermore, arguments are presented in favour of a reciprocal relationship between changes in the business networks of the entrepreneurs and changes in firm performance. Then, an examination follows of how the concepts of organizational learning and human capital capabilities connect to the social capital and network literatures, and hypotheses are formulated on the interpretation of network change and firm dynamics. This is followed by a description of the data and the analytical strategy and a discussion of the findings. The chapter finishes with the societal and policy implications of the findings.

4.2 THEORETICAL PERSPECTIVE

4.2.1 Social networks and firm performance

Economic action cannot be studied without taking into account the social structures in which such activities are embedded (Granovetter 1985). Being embedded in social relationships can bring benefits to a firm because – through their social connections – firms can access the resources that are possessed by or are available to external parties. These external resources form the basis of social capital theory (Gedajlovic et al., 2013; Westlund & Bolton 2003) and are conceptualized and applied here as an outcome of social interactions. To stress the focus on the resources that are accessible through social networks, this chapter predominantly refers to 'social resources' rather than 'social capital'. These external resources can be intangible, such as information or advice, or tangible, such as financial capital or practical help, and they can be seen as additions to the internal resources that are already possessed by a firm or entrepreneur (Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017).

Following the literature, it is argued that the business network of an entrepreneur plays an important role in firm development and firm performance (Dyer & Singh 1998; Hayter 2013; Slotte-Kock & Coviello 2010). Slotte-Kock and Coviello (2010) and Hoang and Yi (2015) divide the research that addresses the role of business networks in entrepreneurship into two categories: one that sees the entrepreneurial network as the independent variable influencing firm activities and outcomes and one that views the entrepreneurial network as the dependent variable. The first line of research (networks impacting performance) has received ample attention in the literature; however, the results are far from consistent (Semrau & Werner 2014). In their overview article on the link between social capital and firm performance, Westlund and Adam (2010) find that at the level of the individual firm, social capital has a strong and positive impact on firm performance. Other studies that focus on small-sized firms in particular present varying outcomes. Watson (2007) finds that social networks are beneficial for the survival and growth of small firms, but not for their profitability. He also warns that the costs of relying on social contacts should not be overlooked (Watson 2007). This aligns with the notion of the 'dark side of social capital,' meaning that an entrepreneur can become locked into (seemingly) stable economic relationships that hinder the influx of new information and opportunities, with negative effects on learning and, consequently, on a firm's economic performance (Granovetter 1973; Hayter 2013). These and other negative implications of social relationships have not received much attention in entrepreneurial research (Gedajlovic et al., 2013), yet they are included in the chapter's hypotheses.

In the second line of research discussed by Slotte-Kock and Coviello (2010) and Hoang and Yi (2015), entrepreneurial networks are seen as the dependent variable. Both studies state that much of the research is focused on the evolution of networks in different phases of the firm's life cycle. In the early phases of the firm's life cycle, entrepreneurs often rely on pre-existing relationships with friends and family, while firm development over time triggers the need for new resources, which in turn leads to changes in the entrepreneurs' social networks (Butler & Hansen 1991; Huggins et al., 2015; Garnsey 1998). However, network changes can also be instigated by negative firm performance. A firm's social network can be important for firm survival if firms strategically use and even adjust their networks to fit their needs during economic downturns.

Networks and micro-businesses

This chapter focuses on solo-entrepreneurs and micro-businesses employing fewer than ten employees (OECD 2005). In these firms, the owner-manager often plays a pivotal role with regard to the decision making, management and development of the business (Braidford, Drummond & Stone 2017; Reijonen & Komppula 2007; Semrau & Sigmund 2012). This also means that the social network of the owner-manager forms a main source of network contacts for the micro-business (Devins et al., 2005). Moreover, the social and business contacts of the owner-manager are often intertwined, with family, friends and other contacts being used for private and business-related purposes (Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017). The social networks of micro-businesses arguably play an important role in firm development over time, because the internal resource base of these firms tends to be smaller compared to larger firms. Through their business contacts, micro-businesses can gain access to resources that they do not possess themselves (Burt 2011). Therefore, the business network can be seen as a counterweight to the so-called 'liability of smallness' (Brüderl & Schussler 1990).

4.2.2 Organizational learning through growth-enabling capabilities

While business networks can provide access to external resources, entrepreneurs or firms must efficiently tap into and learn from these resources to overcome the potential 'dark side of social capital' (Burt 2011; Watson 2007). In the literature, this issue is often discussed by focusing on the absorptive capacity of firms (Cohen & Levinthal 1990; Flatten, Greve & Brettel 2011; Pucci, Nosi & Zanni 2017), pertaining to the capacity to recognize and capitalize on opportunities from new knowledge and to use such opportunities for firm development (Brand, Croonen & Leenders 2018; Hughes et al., 2014). In two comprehensive overviews in the management literature, Cosaert and Volberda (2016) and Apriliyanti and Alon (2017) show that firms endowed with high levels of absorptive capacity can efficiently use external knowledge and gain competitive advantages in the

forms of innovation, profitability and growth. Additionally, this capability increases the pro-activeness of firms in the exploitation of opportunities in their networks of customers and subcontractors. The literature distinguishes many indicators of absorptive capacity, including the educational level of employees, the external management capacities of firms, innovation-focused R&D facilities, and marketing- and customer-focused specializations in firms (Flatten, Greve & Brettel 2011).

In this chapter, absorptive capacity is taken into consideration by examining the learning capacities of the entrepreneurs. The central indicators of these potentially growth-enabling capabilities are related to human capital measures, namely, the highest degree of education obtained by the entrepreneur, successful completion of dedicated courses on financial and marketing skills, and experience in financial management and managerial supervision. Following Qian and Acs (2013, p. 191), the term entrepreneurial absorptive capacity could be adopted here because for many of the micro-firms in this chapter's sample, the capabilities of the owner-manager are the most important, and sometimes the only, source of learning capacities (i.e., absorptive capacity) for the firm as a whole (Gherhes et al., 2016). However, this chapter stays closer to the (performance enabling) human capital and learning interpretation per se, given the wide range of other organizational skills and functions assigned to absorptive capacity in the literature. The networking capacity of entrepreneurs, the main focus of this chapter, forms another element of enabling capacity building. Small-sized enterprises, and micro-businesses in particular, may focus their capacities on (informal) agents in their business network, such as family and friends (Devins et al., 2005; Huggins et al., 2015). Learning capabilities and network advantages may then work in (multiplicative and complementary) interactions to produce better firm performance (Flatten, Greve & Brettel 2011). Alternatively, when firms' capacities to internalize scarce external resources are well developed, smaller business networks – instead of larger ones – may be sufficient (Granovetter 1973). Network enlargement may, under such circumstances, be negatively related to firm performance or may negatively interact with high levels of learning capabilities in relation to firm performance. To what extent this also holds for micro-businesses has been understudied.

4.2.3 Hypotheses on changes in entrepreneurial networks and firm performance

To identify the relationship between micro-firms' business network change and change in firm performance, a number of hypotheses are tested. Here, attention is given to the entrepreneur's learning capabilities, and conditional factors and different characteristics of the entrepreneurs and their firms are controlled for both changes in entrepreneurial networks and firm performance, respectively.

Network change determines firm performance change

This chapter argues that resources accessed through business networks lead to improved firm performance, particularly for micro-businesses (Westlund & Adam 2010). In times of economic uncertainty, micro-businesses have a more urgent need to access new resources through network contacts (Brüderl & Schussler 1990; Burt 2011). Through an enlarged entrepreneurial network, new or additional resources may be brought into a firm. Without these social resources, an increase in firm performance is less likely to be achieved.

Hypothesis 1a: *Over time, an increase in the size of a business network results in an improvement in firm performance.*

Generally, this effect will not continue indefinitely, as the costs of maintaining an ever-growing network may, at some point, outweigh the gains (Gedajlovic et al., 2013; Semrau & Werner 2014; Watson 2007).

Hypothesis 1b: *There is a threshold beyond which an enlargement of the number of network contacts has a negative influence on firm performance.*

Entrepreneurial capabilities enabling firm performance change

The literature suggests that several indicators can capture the (potential) absorptive capacities of firms, such as the educational level of the entrepreneur, R&D and marketing-related activities, and financing skills and capabilities (Cosaert & Volberda 2016; Flatten, Greve & Brettel 2011). Some characteristics of firms and entrepreneurs function as accelerators of firm performance change by enabling better or more efficient access to and use of network resources (Hughes et al., 2014; Qian & Acs 2013). These characteristics influence the capacity of micro-firms to learn from network contacts; consequently, they directly affect firm performance. However, they may also accelerate the effect and interaction of network *change* on firm performance (Huggins, Prokop & Thompson 2017; Qian & Acs 2013).

For the micro-businesses studied in this chapter, the individual entrepreneur plays a pivotal role in recognizing and learning from external resources. The SSNE dataset is particularly rich in characteristics of the entrepreneurs and their firms that can serve as indicators of learning capacities, which in turn can be considered as proxies for absorptive capacity. A positive effect on firm performance change is expected for entrepreneurs with higher levels of education (Hughes et al., 2014; Qian & Acs 2013) and entrepreneurs who obtained specific educational credentials that are related to their firm (Santarelli & Tran 2013). Moreover, it is expected that entrepreneurs who report prior experience with financial management and managerial supervision before starting their firm are more likely to have increased their firm performance compared to entrepreneurs without this prior experience

(Huggins, Prokop & Thompson 2017; Santarelli & Tran 2013). This leads to the following hypotheses:

Hypothesis 2a: The learning capabilities that originate from the human capital (HC) of entrepreneurs positively affect firm performance growth.

Hypothesis 2b: The learning capabilities that originate from the human capital (HC) of entrepreneurs, in positive interaction with social network growth (SNG), accelerate firm performance growth (complementary view of HC and SNG).

Firm performance dynamics driving network change

Firm performance and performance changes can also influence an entrepreneurial network and the changes therein. The micro-businesses in this chapter's sample may tap into social resources in case they have to cope with the consequences of *negative* firm performance. Alternatively, *positive* firm performance may lead to reduced business network dependence, as the firm's own strengths are more trusted (the "liability of senescence"; see Barron, West & Hannan 1994). This leads to the following hypothesis:

Hypothesis 3: A decrease in firm performance change triggers network expansion, while a positive performance change leads to smaller network change (following the senescence argument).

4.3 METHODS AND DATA

For the analyses, two waves of data are used from the *Survey on the Social Networks of Entrepreneurs* (SSNE), collected in 2008 (SSNE1) and 2014 (SSNE2). The SSNE focuses on entrepreneurs whose firm and private residence are located in residential neighbourhoods. As selection criteria, only those entrepreneurs who live at either the same address as their firms or within ten minutes walking distance from their firms could participate in the survey.

The first wave of the SSNE focused on a sample of 161 neighbourhoods in 40 municipalities throughout the Netherlands[10]. Within these neighbourhoods, a total of 1031 firms were defined as local (67% of the total number of extant firms). Due to non-response issues during the data collection, 385 entrepreneurs in 141 neighbourhoods were interviewed in 2008 (corresponding to a response rate of 37.3%). In 2014, all respondents were contacted again, and 214 of them participated in the second wave (including those who had relocated in the meantime). After eliminating incomplete questionnaires, entrepreneurs who had terminated their activities, and businesses with more than nine employees, the sample consists of 165 entrepreneurs for whom information is available on their performance and network sizes for both 2008 and 2014[11].

4.3.1 Dependent variables

Network size as a dependent variable

In the SSNE, the name-generating method was used to collect the data on entrepreneurial networks (Burt 1984). The survey questions allow for specific differentiation between the network contacts that are used for personal matters and those used for firm purposes, resulting in rich information on the different 'uses' of network contacts by entrepreneurs. Some types of network contacts (e.g., family contacts) play a role in both the private and business dimensions, while others only engage with one of these two dimensions. This particular chapter examines the network contacts that are used for firm-related purposes (i.e., the business network). More precisely, the entrepreneurial network is defined as the contacts that are used 1) to discuss important firm-related issues, 2) to find practical support for business matters, and/or 3) to cooperate with the entrepreneur.

The results of three name-generating questions are used to construct the business network of an entrepreneur. The first question addresses the core advice network for business-related matters. This question reads, "*During the last six months, with whom did you*

10 The SSNE is a supplement to a larger survey on the social networks of the inhabitants of Dutch neighborhoods, namely, the Survey on the Social Networks of the Dutch (SSND) (Volker & Flap 2002). The first wave of the SSND (1999/2000) was based on a stratified random sample of 40 urban and rural municipalities. Within the 40 municipalities that were sampled, four (and in one case, five) neighborhoods were randomly selected, yielding a selection of 161 neighborhoods. The neighborhoods were selected using the Dutch postal code system (five-digit). The corresponding districts can be seen as an approximation of the local environment of the residents.

11 In the first wave of the SSNE, a total of 385 entrepreneurs responded to the questionnaire. Of this group, 214 also participated in the second wave of the SSNE. The remaining 171 entrepreneurs are not in the panel for numerous reasons, such as refusal to participate again (N=87). When checking for representativeness and sorting, no substantial differences between the entrepreneurs in the first and second waves were found.

discuss important matters regarding your firm and its development?" (Bailey & Marsden 1999). Because this was the first name-generating question in the survey, the entrepreneurs were allowed to name a maximum of five persons (firms were not allowed). This limitation did not lead to truncation in the data[12]. The second name-generating question focuses on the inter-firm cooperation contacts: "*With which firms does your firm cooperate formally on a regular basis?"* Examples of inter-firm cooperation include help, advice or support on, for instance, administrative issues, regulations or purchasing, with market-type relationships being excluded. Here, the respondents could name up to three firms with whom they cooperated. Truncation may be a problem here, because in both waves of the SSNE, approximately 20 percent mentioned three cooperation partners, which was the maximum number allowed. However, when comparing regular OLS multilevel modeling with the outcomes of the ordinal logistics multilevel modeling, no major differences were found, which suggests that data truncation is not an issue here. Finally, the network contacts used for practical support on business-related matters were captured using the question: "*If you are doing odd jobs for the firm and you need someone to help, who do you ask for help*?" Entrepreneurs were allowed to mention three new persons and/or firms in addition to those they had already mentioned in response to the previous questions. Only three entrepreneurs in the SSNE1 and six in the SSNE2 mentioned this maximum number of three new contacts, so data truncation is not an issue here. Network size is then calculated as the sum of all unique network contacts mentioned in response to the three name-generation questions. Because the limitations that are imposed by the framing of the network size questions did not lead to truncation of the data, the dependent variable 'network size' is treated as a count variable.

Network change is measured as the net change in the number of network contacts that are mentioned in 2014 and 2008; for the sample of entrepreneurs, the network change ranges from minus seven to plus nine contacts (see Appendix 4A.3).

Firm performance as a dependent variable

Besides network size, firm performance is also used as a dependent variable in the analyses. Although different measures of firm performance have been applied in previous research, firm sales, which is a commonly used indicator in the performance research[13], is used here (Reijonen & Komppula 2007; Watson 2007). The dataset contains self-reported information

12 In the SSNE1, there were no entrepreneurs who mentioned the maximum number of five contacts for the question on the core advice network of the entrepreneur, and only two entrepreneurs did so in the SSNE2.

13 In this chapter, firm sales is used as an indicator of firm performance, whereas other studies also include variables that measure firm survival as indicators of success. As entrepreneurs participated at two points in time, this already implies that these firms have survived over time.

on firm sales (in Euros) for both 2008 and 2014. The answer categories for this question are ordered from low to high; however, they are not equally spaced[14]: 1) below €10,000, 2) €10,000-€20,000, 3) €20,000-€50,000, 4) €50,000-€100,000, 5) €100,000-€250,000, 6) €250,000-€500,000, and 7) more than €500,000.

Performance change occurs as firm sales move from one category to another between 2008 and 2014. For the entrepreneurs in the panel, the firm performance change ranges between minus three and plus two (see Appendix 4A.3).

4.3.2 Measures for human capital-related learning capabilities

A number of human capital-related variables are considered to mirror the learning capabilities of the entrepreneurs (Huggins, Prokop & Thompson 2017; Pucci, Nosi & Zanni 2017). The level of education of the entrepreneur ('education') serves as an indicator of the level of human capital. This is an ordinal variable for the highest level of education that was completed by the respondent (i.e., the entrepreneur), with the following categories: 1) no tertiary education, 2) lower tertiary education, and 3) higher tertiary education (with the first category being the reference category). Furthermore, industry-specific education is used, both in general ('education specific to the firm') and in the last five years ('education specific to the firm in the last five years'). Both variables are dichotomous (0=no, 1=yes). Finally, the respondents' experience with financial management ('experience financial management') and with managerial supervision ('experience managerial supervision') are included, both using a five-point scale ranging from (1) 'very little' to (5) 'a lot'.

4.3.3 Independent control variables

Several control variables are added for conditional factors and characteristics of entrepreneurs and firms that previous research has shown have an impact on business networks and/or firm performance.

The age of an entrepreneur is considered an important condition for human capital, as older entrepreneurs are believed to have had the possibility to acquire more knowledge and experience over their life course, enabling them to successfully conduct business. It is therefore assumed that network size decreases with age (Klyver & Hindle 2007; Semrau & Werner 2014). A next indicator concerns firm age, which can be seen as a sign of survival and stability in business activities. Younger firms are expected to experience higher growth in performance than older firms (Butler & Hansen 1991; Garnsey 1998). Also, a positive

14 To control for the unequal spacing, the data for firm performance were recoded to the median value of each category and entered in the analyses. This check rendered similar outcomes to firm performance measured as an ordinal variable.

effect of firm age on the size of entrepreneurial networks is assumed, as older firms have had more time to build a strong business network that accumulates resources (i.e., social capital).

The next control variable is the self-reported number of hours that the entrepreneur spent per week on firm-related activities ('hours worked') in both 2008 and 2014. Intuitively, time investment and firm performance will be positively related. However, the relationship is expected to mirror an inverse u-shape, as spending more hours on the firm will not lead to an increase in performance after a certain threshold and may even turn negative. The same argument applies to the relationship between time investment and the size of the business network. Therefore, the quadratic term of 'hours worked' is added as an independent variable[15].

The presence of a business partner (added as a dichotomous variable) usually implies an improvement in firm performance over time as extra knowledge, skills and shared responsibilities are obtained (Sleutjes, Van Oort & Schutjens 2012). Also, having a business partner may enlarge the business network as a whole due to (the introduction of) the partner's non-redundant contacts.

Next, because the entrepreneurs in this study are predominantly locally oriented – they all live in or close to the neighbourhood in which their business is located – the local environment is a potentially important source of clientele and network contacts for their firms (Sleutjes, Van Oort & Schutjens 2012). Accordingly, the analyses take into account the spatial 'market orientation' of the firm, to distinguish between locally[16] and non-locally oriented firms, and whether the firm is 'home-based' (added as a dichotomous variable).

All of the abovementioned control variables are measured in 2008. Finally, the dichotomous variable 'time' ('0' for wave 1; '1' for wave 2) is added to the models as a control variable for the global trends in the economic climate during the period 2008-2014.

4.3.4 Estimation Strategy

In analysing the interplay between changes in the business networks and firm performance, multilevel models and fixed-effects models are used complementarily, exploiting each method's strengths. Fixed-effects models are used to eliminate between-subject variation, thereby allowing causal inference on within-subject variation (Rabe-Hesketh & Skondral

15 To improve the readability of the outcomes, this variable is divided by one thousand.

16 Firms that are active in the retail and catering industry, personal services and private education are considered locally oriented firms.

2012). However, only time-variant independent variables can be added to the fixed-effects model, as the dependent variable is always time-varying (Snijders & Bosker 2012).

Data with multiple measurement points can alternatively be interpreted as multilevel data (Rabe-Hesketh & Skondral 2012). In this chapter, the two measurement points of the SSNE are regarded as first-level data, whereas the individual entrepreneurs who participated in both waves form the second level. Snijders and Bosker (2012) state that multilevel models are preferred when the researcher is interested in between-subject (i.e., second-level) differences. Both time-variant and time-invariant variables can be added to a multilevel analysis[17].

In the first set of models, firm performance change between 2008 and 2014 is the dependent variable. Performance is measured as an ordinal variable, which forces the use of a multilevel ordinal logistic regression model[18]. Random-effects modeling allows estimation of two multilevel models, one with only time-variant variables and one with both types of independent variables to control for the characteristics of the entrepreneur and the firm[19]. In the models for network size, regular multilevel regression modeling is conducted.

4.4 FINDINGS

Descriptive statistics are presented in Appendix 4A.1. The average firm performance was approximately 3.9 in 2008 and 3.8 in 2014. The average network size was 3.41 in 2008, with a slight increase to an average of 3.62 in 2014. In both cases, the changes are not statistically significant.

17 For this chapter's data, this means that respondents without change in firm performance between 2008 and 2014 (N=86) or without change in network size (N=28) cannot be taken into account in the fixed-effects model, whereas they can be added in the multilevel model.

18 When comparing the outcomes of the 'xtologit' and 'gllamm' commands in STATA, they turned out to be virtually the same; therefore, the suggestion of Rabe-Hesketh and Skondral to use the 'gllamm' (generalized linear latent and mixed models) command is followed (Rabe-Hesketh & Skondral 2012). The different findings are available upon request.

19 There were some difficulties in estimating the fixed-effects ordered logistic model variable in terms of the consistency of the estimator (the so-called 'incidental parameters problem'). Several estimators have been proposed in the literature as solutions to this inconsistency. Here, the BUC estimator proposed by Baetschmann, Staub and Winkelmann (2015) was used as an addition to a regular fixed-effects ordered logit model. The findings of the BUC estimator are in line with the outcomes of the fixed-effects ordered logistic model with regard to significance levels and the signs of the coefficients. To improve readability, the findings of the BUC-estimations are not incorporated in the tables; the findings are available upon request.

4.4.1 Models of firm performance

The models for firm performance are presented in Table 4.1. Comparing the fixed-effects model (IV) and multilevel models (I-III), it is clear that the outcomes are similar across the estimation methods. The significant coefficients for 'change in network size' in models I and IV indicate that some part of the effect of network size on firm performance can be attributed to the effect of changes in these variables. This finding is in line with hypothesis 1a: network enlargement over time results in higher firm performance, which suggests that bringing in new or additional resources through network contacts is an effective strategy for micro-businesses' performance.
In model III, hypothesis 1b is tested by including the variable 'network size in 2008' (the initial network size) and an interaction term of the network size in 2008 and the network change between 2008 and 2014. The outcomes show no support for the idea that there is a 'dark side' to the business-related networks of the firm (hypothesis 1b). Thus, a micro-business would do well to add contacts to its business-related network, as this addition yields benefits in terms of performance without there being a maximum network size.

Regarding the human capital variables used to study hypothesis 2a (model III) and that serve as indicators of the learning capacities of the entrepreneurs, the results show that none of these variables have a significant influence on firm performance change, which is inconsistent with expectations. Interestingly, the level of education, which is one of the most-often used indicators of human capital, appears to have no effect on firm performance[20].

Considering the control variables, the age of the entrepreneur has a significant negative impact on changes in firm performance in all models but model III. Contrary to the previously discussed expectations, the results suggest that older *entrepreneurs* are more likely to experience a negative change in their firm performance over time than younger ones. Additional analyses[21] show that this effect is related to the age of the firm; the age of the entrepreneur has no effect on firm performance if firm age is left out of the analysis. Thus, holding constant for firm age, younger entrepreneurs are more likely to increase their firm's performance than older ones. One explanation for this result may be that older *entrepreneurs* rely more on knowledge that has become outdated over time or that may have become less successful. Bringing in additional or new social resources could therefore be a worthwhile strategy for older entrepreneurs. Interestingly, an increase in

20 This finding also holds for the bivariate relationship between firm performance and the level of education of the entrepreneur.

21 Models with only the control variables are estimated as a means of additional analysis; results are available upon request.

firm performance is more likely the longer the firm has existed. This could be a sign that firms' routines, unlike those of individual entrepreneurs, are successful and persistent over time. Also, these firms may have had the time to build a reputation in the market, which signals trustworthiness to their clientele (Hoang & Yi 2015).

In line with expectations, the number of hours worked per week has a positive impact on firm performance; however, no diminishing effect of additional hours spent per week is found. Instead, the findings show that adding more hours increases firm performance, which may be related to the large variation in this variable (see Appendix 4A.1). Having a business partner has a significantly positive influence on firm performance. Finally, being home-based negatively influences firm performance, in contrast to the findings from model IV.

4.4.2 Accelerators of performance change

For each indicator of the entrepreneurial learning capabilities, an interaction term is created with network size change, and these are added to the multilevel model (hypothesis 2b). In Table 4.1, only the interaction term for firm-specific coursework is added (model V), as this is the only term leading to an improved model fit in comparison to model II.

The significant interaction term in model V needs further interpretation. Focusing on the main effect, it shows that entrepreneurs who have taken a firm-specific course during the last five years perform less well than entrepreneurs who did not take such coursework. This is a counterintuitive finding, as the effect of education in any form was expected to be positive for firm performance. The main effect for change in network size has become insignificant in model V. However, the interaction term shows that additional education positively affects firm performance among entrepreneurs who enlarged their network. This finding supports the hypothesis with regard to the complementary view of learning capabilities and social network growth (hypothesis 2b). The negative main effect of having recently taken a firm-specific course becomes a positive effect in interaction with change in network size. An intuitive explanation for this is that an entrepreneur needs new or additional social resources to productively bring the newly acquired skills into practice. Alternatively, considering the matter from a reverse perspective, network growth leads to increased firm performance especially when an entrepreneur has recently engaged in firm-specific education. Although this is the only significant interaction term, this finding gives reason to conclude that the complementary view of learning capabilities accelerating the positive effect of network change on firm performance change holds for the micro-businesses in this study (hypothesis 2b).

Table 4.1: Performance change as dependent variable

Model name	Benchmark	I	II	III	IV	V
Technique	OLS	Multilevel excl. time-invariants	Multilevel incl. time-invariants	Multilevel interaction network size 2008	Fixed-effects	Multilevel interaction firm-specific education in last 5 years
Change in network size	0.10** (0.04)	0.19* (0.08)	0.21* (0.08)	0.16 (0.09)	0.13* (0.06)	-0.23 (0.21)
Education (2)	-0.08 (0.18)		-0.13 (0.70)	-0.08 (0.71)		-0.15 (0.71)
Education (3)	0.42 (0.25)		1.31 (0.99)	1.27 (1.00)		1.37 (0.99)
Education specific to firm	-0.04 (0.16)		0.15 (0.36)	0.1 (0.36)		0.15 (0.36)
Education specific to firm since 2008	-0.29 (0.16)		-0.34 (0.36)	-0.33 (0.36)		-1.51* (0.63)
Experience financial management	0.14** (0.06)		0.30 (0.17)	0.31 (0.17)		0.33 (0.17)
Experience managerial supervision	-0.02 (0.01)		-0.24 (0.16)	-0.23 (0.16)		-0.26 (0.17)
Age of entrepreneur	-0.03** (0.01)		-0.08* (0.04)	-0.07 (0.04)		-0.08* (0.04)
Years of firm's existence (log)	0.46*** (0.08)		1.39*** (0.34)	1.40*** (0.34)		1.38*** (0.34)
Hours worked	0.03*** (0.01)	0.09*** (0.02)	0.07*** (0.02)	0.07** (0.02)	0.14*** (0.03)	0.07*** (0.02)
Hours worked squared	0.15 (0.07)	0.63*** (0.17)	0.60*** (0.17)	0.61*** (0.17)	-0.83** (0.31)	0.61*** (0.17)
Business partner (yes/no)	0.58*** (0.17)	2.30** (0.72)	1.80** (0.68)	1.71* (0.67)	1.00*** (0.25)	1.74** (0.67)
Time	-0.09 (0.15)	-0.30 (0.23)	-0.31 (0.24)	-0.29 (0.24)	0.04 (0.14)	-0.29 (0.24)
Home-based (yes/no)	-0.66** (0.22)	-2.33* (0.94)	-2.30* (0.90)	-2.21* (0.89)	-0.64 (0.39)	-2.39** (0.90)
Market orientation (local/non-local)	-0.27 (0.16)		-1.18 (0.68)	-1.11 (0.68)		-1.13 (0.68)
Network size in 2008	x	x	x	0.28 (0.18)	x	x

Table 4.1: Performance change as dependent variable (*continued*)

Model name	Benchmark	I	II	III	IV	V
Technique	OLS	Multilevel excl. time-invariants	Multilevel incl. time-invariants	Multilevel interaction network size 2008	Fixed-effects	Multilevel interaction firm-specific education in last 5 years
Interaction term	x	x	x	0.03 (0.03)	x	0.31* (0.13)
Constant	3.25*** (0.62)					
Log likelihood		-476.63	-461.64	-460.39	-529.11	-458.95
R^2 (overall)	0.48					
N	165	165	165	165	165	165

*Significance levels: *p<0.05 **p<0.01 ***p<0.001*
Source: SSNE1, 2008 and SSNE2, 2014.

4.4.3 Models of network size

The analyses with network size as the dependent variable are presented in Table 4.2. Models I and II show that an increase in firm performance has a significant positive effect on network size. In other words, micro-businesses that have increased their performance over time are likely to have also expanded their networks. The results provide neither support for the idea that negative firm performance would lead to or require network expansion nor for the idea that an increased firm performance would make entrepreneurs less dependent on their network (the senescence argument; see hypothesis 3).

Interestingly, when comparing the different models, the fixed-effects model (model III) differs from the multilevel models (models I and II) regarding the findings for 'firm performance change'. Firm performance change is not significant in the fixed-effects models of network size, suggesting that network size is affected by firm performance at a certain point in time instead of by changes in performance over time. This finding is likely to be caused by the large number of entrepreneurs without changes in their firm performance over time (N=86), which are left out of the analyses in the fixed-effects models. Their unchanged level of firm performance over time has brought about positive changes (growth) in the size of the entrepreneurial network. The presumed reciprocal relation between changes in network size and changes in firm performance is not supported by the findings from these analyses. Whereas changes in network size have a positive influence on changes in firm performance, the opposite seems not to be the case. Instead, stable firm performance over time causes growth of the entrepreneurial network.

Finally, the age of the entrepreneur is the only other significant variable in model II in Table 2. Network size is more likely to decline over time for older entrepreneurs, which is consistent with expectations.

Table 4.2: Change in network size as dependent variable

Model name	Benchmark	I	II	III
Technique	OLS	Multilevel excl. time-invariants	Multilevel incl. time-invariants	Fixed-effects
Performance change	0.24** (0.09)	0.22** (0.08)	0.23** (0.08)	0.33 (0.22)
Education (2)	-0.06 (0.29)		-0.05 (0.26)	
Education (3)	-0.21 (0.40)		-0.19 (0.37)	
Education specific to firm	-0.11 (0.23)		-0.07 (0.23)	
Education specific to firm in last five years	0.01 (0.24)		-0.01 (0.23)	
Experience financial management	-0.14 (0.09)		-0.15 (0.09)	
Experience managerial supervision	0.03 (0.02)		0.02 (0.02)	
Age of entrepreneur	-0.04** (0.01)		-0.04** (0.01)	
Years of firm's existence (log)	-0.20 (0.13)		-0.19 (0.12)	
Hours worked	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.04)
Hours worked squared	-0.06 (0.11)	-0.07 (0.11)	-0.07 (0.11)	-0.21 (0.48)
Business partner (yes/no)	0.24 (0.27)	0.36 (0.28)	0.24 (0.25)	-0.10 (0.41)
Time	0.24 (0.20)	0.27 (0.20)	0.24 (0.22)	0.27 (0.21)
Home-based (yes/no)	-0.05 (0.36)	-0.23 (0.37)	-0.05 (0.33)	-0.97 (0.54)
Market orientation (local/non-local)	-0.09 (0.26)		-0.09 (0.24)	
Constant	5.24*** (0.90)	2.59*** (0.54)	5.24*** (0.90)	2.84** (1.02)
Log likelihood	-685.99	-696.22	-688.66	
R2 (overall)				0.05
N	165	165	165	165

Significance levels: *p<0.05 **p<0.01 ***p<0.001
Source: SSNE1, 2008 and SSNE2, 2014.

4.5 DISCUSSION AND CONCLUSION

This chapter examines the relationship between changes in business networks and the firm performance of micro-businesses. This is one of the first studies to analyse social network *change* in relation to firm performance *change* while considering the accelerating role of the learning capabilities of entrepreneurs in network change and firm performance change. By using and comparing multilevel analyses and fixed-effect models and by adding time-invariant variables, relatively robust outcomes are obtained.

This chapter's results suggest that the widespread hypothesis that the entrepreneurial network solely influences firm performance is only half the story: the empirical results indicate a reciprocal relation between the networks and the performance of micro-businesses. This is an interesting outcome for at least two reasons. First, it stresses the importance of business networks and network change for micro-businesses (Westlund & Adam 2010). Whereas previous research has questioned the prevalence and benefits of (localized) business networks for micro-businesses (see Curran & Blackburn 1994; Gherhes et al., 2016), the findings show that neighbourhood-based micro-businesses enlarge their networks over time, which positively affects their firm performance. Network enlargement, and the corresponding access to social resources, counterbalances the small initial resource base of the micro-businesses and is therefore a way to circumvent the potential 'liability of smallness' (Brüderl & Schussler 1990). Second, this chapter suggests that network change is not necessarily the result of strategic entrepreneurial action to improve business performance but that network change can also be a consequence of or a reaction to the firm's performance. More precisely, performance stability is found to trigger changes in network size.

This study provides three additional important insights. First, the findings indicate that the micro-businesses in this chapter's sample are not 'locked into' their social networks: pre-existing social networks are no hindrance to network change over time. In other words, no support is found for the idea of 'a dark side of social capital'. Also, for the micro-businesses studied in this chapter, there is no sign that there is a threshold above which an increase in the number of network contacts would harm the firm's performance.

Second, regarding the effect of entrepreneurial learning capacities on firm performance change, the findings show that although the owner-manager plays an important role within the micro-business (Braidford, Drummond & Stone 2017; Reijonen & Komppula 2007), the human capital endowments of this entrepreneur have almost no direct effect on firm performance change. This is in line with findings in other studies that are critical towards the effect of education on firm development (see Gherhes et al., 2016).

Third, the chapter explored whether the indicators of entrepreneurial learning capacities accelerate the effect of social network change on firm performance (Hughes et al., 2014; Qian & Acs 2013). The analyses rendered only one significant outcome, namely, the outcome regarding recent coursework related to the firm's activities, which points in the direction of a positive interaction between a micro-firm's absorptive capacity and business network change benefitting firm performance (i.e., the complementary view). This finding can be related to the notion that some level of prior knowledge must be present for new or additional social resources to be beneficial to firm development (Hughes et al., 2014).

4.5.1 Limitations and implications for future research

This study has some limitations. Although a representative sample is used, the results are specific to neighbourhood-based micro-businesses in the Netherlands. It was found, for instance, that being home-based negatively impacts firm performance, but the data prohibit a comparison with micro-businesses that are not neighbourhood-based. It may well be the case that other forces are at play for those types of micro-businesses, such as a different composition of their business networks or a different relation to their local business environment. Additionally, the respondents participated at two points in time, in 2008 and 2014. This means that approximately five years passed between the two waves of the SSNE, during which changes could have occurred that are not captured in this chapter's data. Intermediate differences in either the size of the entrepreneurial networks or firm performance are left out of the discussion. Moreover, the period between 2008 and 2014 was a time of serious global economic downturn. Although this influence is controlled for by performing a multilevel analysis, this still means that the generalization of the results to other contexts or times may be limited. The lack of a reference group outside of this period of economic austerity inhibits analyses of how entrepreneurs use their networks differently in different economic circumstances and how the relationship between business networks and firm performance may also differ under varying economic conditions.

Another limitation of the analyses is that micro-businesses without any change in network size or firm performance are not uniquely analysed. Although these cases were controlled for when applying multilevel models, this chapter's hypotheses mainly address changes in both firm performance and network size. However, and especially in the turbulent economic period between 2008 and 2014, a stable firm performance can also be considered as a sign of firm resilience. This is also suggested by our fixed effect models on network change, which showed that stable firm performance over time is positively related to network growth.

4.5.2 Policy implications

Advancements in communication technologies and the shift towards a more service-driven economy have led to a rise in the number of entrepreneurs who work from or in close proximity to their own homes (OECD,\ 2015). However, entrepreneurs and micro-businesses that are located in residential neighbourhoods are seldom researched in studies of urban economic development or entrepreneurship, as they do not typically represent large employers or high-growth types of firms (Welter et al., 2017). Nevertheless, the growing number of micro-businesses located in residential areas can have a positive influence on the urban economy, particularly if such firms manage to stay in business or even scale-up over time. It is in this context that the business networks of micro-businesses can play an important role. Network enlargement leads to improved firm performance and thereby increases the chance of firm survival and growth. Therefore, options for policy makers who seek to improve local entrepreneurship include creating platforms and facilitating networks where entrepreneurs can easily meet other potential contacts (locally), thereby expanding their networks and potential social resources.

Another policy recommendation is related to the finding that an entrepreneur's prior knowledge accelerates the positive effect of adding network contacts on performance. Accordingly, facilitating educational options that are tailored to the needs and wishes of micro-business owners can ensure that they can capitalize upon changes in their network contacts and learn from newly acquired social resources.

APPENDICES

Appendix 4A.1: Descriptive statistics

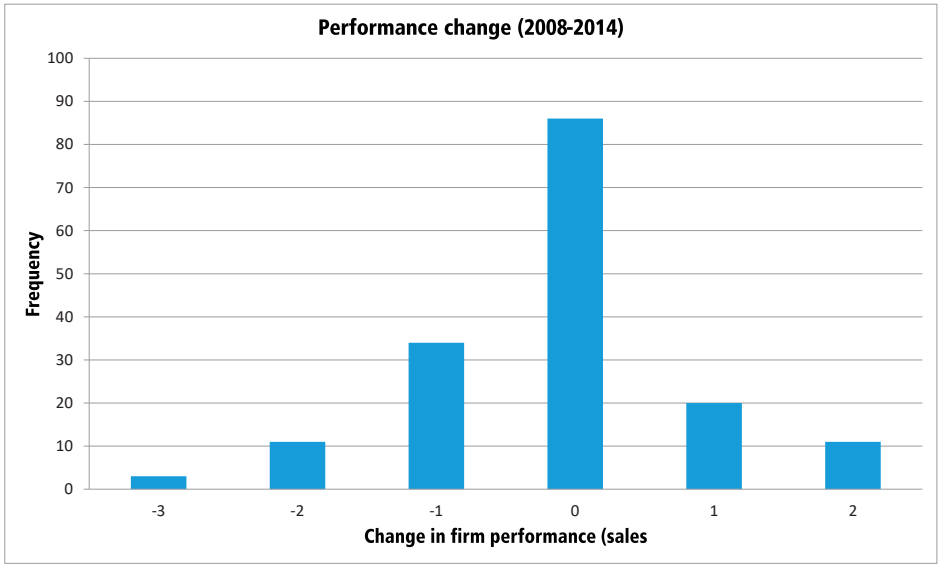
Variable	2008	2014
Performance (average)	3.94 (1.79)	3.8 (1.81)
Network size (average)	3.41(2.08)	3.62 (2.33)
Education (per type)		
1. No tertiary education	62.42%	
2. Lower tertiary education	25.45%	
3. Higher tertiary education	12.12%	
Education specific to firm	46.06%	
Education specific to firm in last five years	39.39%	38.79%
Experience financial management (per answer category)		
None/very little	52%	
Little	18%	
Average	9%	
Above average	11%	
A lot	10%	
Experience managerial supervision (per answer category)		
None/very little	36%	
Little	13%	
Average	14%	
Above average	25%	
A lot	12%	
Age entrepreneur (average)	49.90 (9.14)	
Years of firm existence (average)	17.78 (19.07)	
Hours worked (average)	42.10 (20.33)	39.06 (20.56)
Business partner	30.30%	28.48%
Home-based	85.45%	84.24%
Local market orientation	31.52%	
N	165	165

Source: SSNE1, 2008 & SSNE2, 2014.

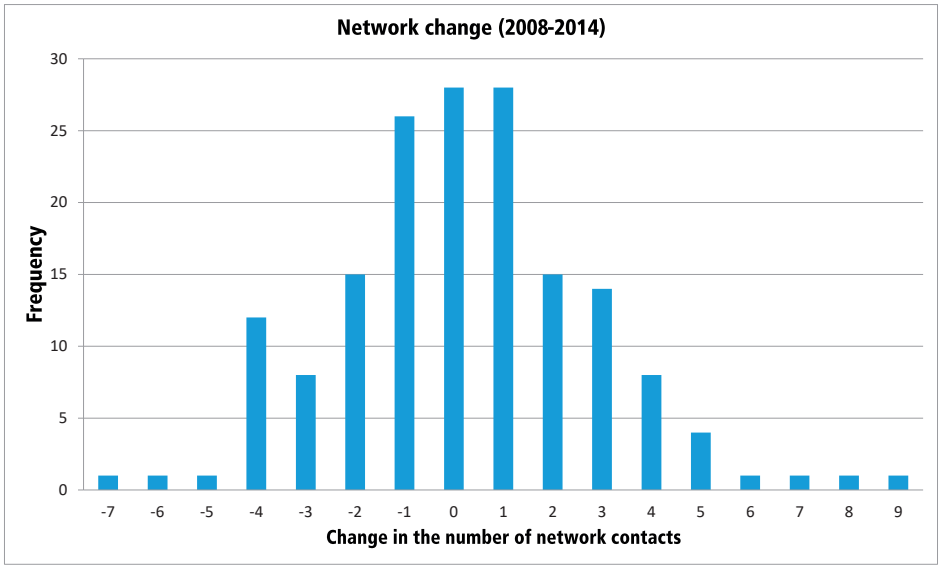
Appendix 4A.2 : Correlation table

	Performance change	Network change	Performance in 2008	Network size in 2008	Education	Education specific to firm	Education specific to firm in last five years	Experience Financial Management	Experience Managerial Supervision	Age of entrepreneur	Years of firm existence (log)	Hours worked	Hours worked squared	Business partner (yes/no)	Home-based	Market Orientation
Performance change	x															
Network change	0.13	x														
Performance in 2008	-0.26	-0.15	x													
Network size in 2008	-0.01	-0.53	0,26	x												
Education	0.05	-0.23	-0,1	0,04	x											
Education specific to firm	0.02	-0.03	-0,04	0,06	-0,15	x										
Education specific to firm in last five years	0.15	-0.02	-0,13	-0,03	-0,04	0,37	x									
Experience Financial Management	0.15	-0,03	-0,03	0,04	0,2	0,1	0,07	x								
Experience Managerial Supervision	0.15	-0,06	0,1	-0,04	0,23	0,11	0	0,59	x							
Age of entrepreneur	-0.12	-0,01	-0,16	-0,27	0,06	-0,06	0,02	0,02	0,15	x						
Years of firm existence (log)	-0.16	-0,08	0,37	-0,01	-0,24	-0,05	-0,04	-0,19	0,05	0,16	x					
Hours worked	-0.09	-0,07	0,57	0,13	-0,2	0,09	0,09	0,03	0,03	-0,07	0,36	x				
Hours worked squared	-0.03	-0,06	0,49	0,1	-0,2	0,09	0,09	0,04	0,05	-0,06	0,37	0,96	x			
Business partner (yes/no)	0.07	-0,06	0,26	0,18	-0,13	0,05	-0,02	-0,05	0,01	-0,2	0,17	0,08	0,1	x		
Home-based (yes/no)	-0.02	0,09	-0,27	-0,14	-0,03	-0,1	-0,05	-0,12	0	0,2	-0,04	-0,2	-0,16	-0,14	x	
Market Orientation (local/non-local)	0.06	-0,06	0,02	0	-0,18	0	0,04	0,01	0,05	0,03	0,23	0,18	0,19	-0,02	-0,13	x

Source: SSNE1, 2008 and SSNE2, 2014.



Source: SSNE1, 2008 & SSNE2, 2014.



Source: SSNE1, 2008 & SSNE2, 2014.

Appendix 4A.3 : Network change and performance change (2008-2014)

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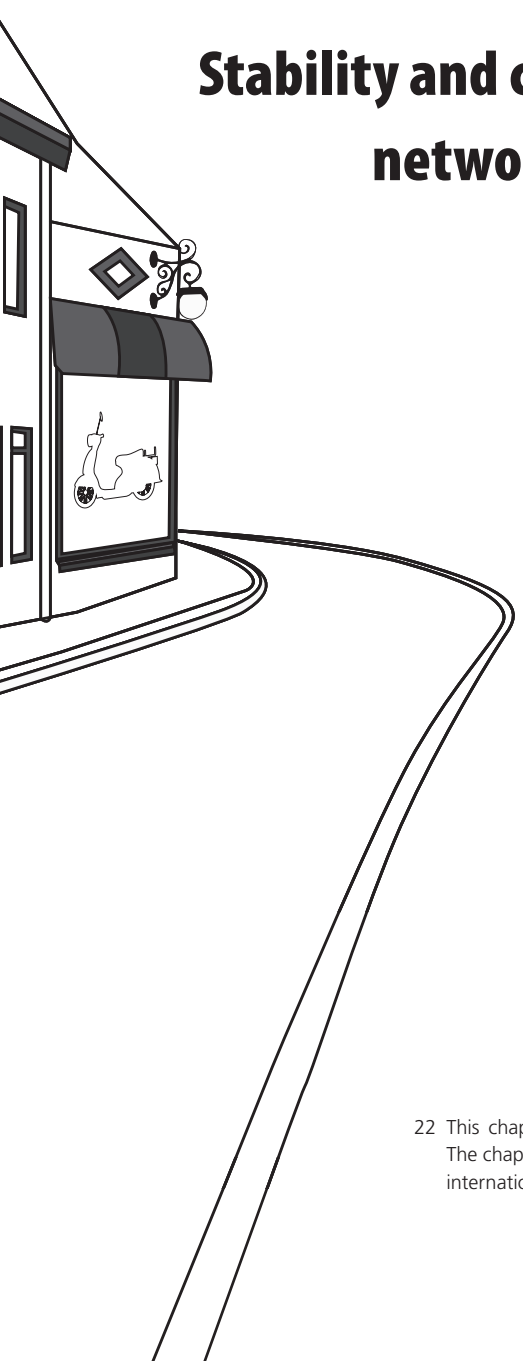
Chapter 5



Stability and change in entrepreneurial networks – implications for firm performance[22]

22 This chapter is co-authored by Gerald Mollenhorst and Veronique Schutjens. The chapter is currently under review (second round - revise and resubmit) at an international journal.

5.1 INTRODUCTION

There is strong empirical evidence that being socially connected matters for entrepreneurs, both in their private and business lives (a.o. Greve & Salaff 2003; Stam, Arzlanian & Elfring 2014; Westlund & Adam 2010). Network contacts create access to new or additional resources for entrepreneurs, which can be beneficial for business survival and development (Stam, Arzlanian & Elfring 2014). In particular small- and medium sized enterprises (SMEs) can benefit from resources accessed through their networks, as they often have a small internal resource base and might suffer from the so-called 'liability of smallness' (Brüderl & Schussler 1990; Cooke 2007).

In the literature, the social networks of entrepreneurs and businesses are often conceptualized as static entities, which once created, would last forever. But the resource needs of firms may change during their life course, which requires access to novel network contacts and as such, leads to changes in the social networks of the entrepreneurs (Jack, Drakopoulou Dodd & Anderson 2008; Mollenhorst, Volker & Flap 2014; Huggins et al. 2015). Therefore, the current debate in the literature calls for applying a dynamic perspective in studying entrepreneurial networks (Jack 2010; Lamine et al., 2015). Although this call has been answered by several scholars (Pollack et al., 2016; Stam, Arzlanian & Elfring 2014), most of the scientific work on network change focused on the increase or decrease in the network size of an entrepreneur. As such, there is little attention for network compositional changes, let alone for in-depth network changes on the level of the individual network relationships. We know very little about, for example, which relationships are likely to decay over time, which relationships are most stable, and what kind of new relationships are added to the entrepreneurial network. And also, we lack knowledge on how such network relationship changes are associated with the performance of firms. As such, a focus on the detailed network relationship sheds light on the actual mechanisms involved in the link between networks and firm performance. And this is what this chapter aims to do: to uncover what is happening 'below the surface' of net changes in network size and composition by closely examining network relationship stability and change in relation to firm performance.

In this chapter we use data on 183 entrepreneurs whose small-sized businesses are located in Dutch residential neighbourhoods and who live in (close proximity to) these neighbourhoods. We have detailed information on their social networks that enables us to study network change and stability at the relationship level and how this relates to firm performance. Findings based on these data will answer the research question: *To what extent are network relationships of small-sized businesses and their owners stable or do they change over time and how does network stability and change relate to firm perfor-*

mance? When studying changes in the networks of entrepreneurs, we focus in particular on three relationship dimensions to explore how stability of relationships relates to the performance of firms. These three relationship dimensions are (a) the relationship strength, (b) the relationship locality, and (c) the relationship multiplexity in terms of serving private purposes, business purposes, or both.

First, with regard to tie strength, relationship stability and firm performance, we encounter an interesting paradox. On the one hand, entrepreneurs may change network relationships because they need resources that are not yet available among their existing network members (Jack, Dodd & Anderson 2008). But on the other hand, network change may impede the creation of trust, which requires time and investments in relationships (Arregle et al., 2015). Thus, a need for network change seems to be in contrast to the widespread idea that stability and trust are important features of valuable economic and social constellations (Smith & Lohrke 2008; Welter 2012). This raises the question whether relying on stable networks or finding new network contacts is most beneficial for the performance and development of firms. Or is there a third alternative: should entrepreneurs change specific parts of their networks whilst keeping others stable?

Second, the locality of relationships and its stability is of particular concern for the group of entrepreneurs studied in this chapter: entrepreneurs who are running a firm located in their residential neighbourhood. All entrepreneurs interviewed work and live in (or close to) a specific neighbourhood, because they either work from home (i.e. home-based businesses) or reside in close spatial proximity to their business. Accordingly, a large part of the daily lives and routines of these entrepreneurs are centred in or on the residential neighbourhood (Johannisson 2011). This may stimulate social interactions with other local residents and businesses. We study the number of local relationships in the networks of the entrepreneurs, and in particular how the stability of local relationships is associated with firm performance. Although embeddedness in the local social context may not always enhance firm performance (Korsgaard, Ferguson & Gaddefors 2015; Welter 2012), we expect that being and becoming embedded in local social structures is beneficial for neighbourhood-based entrepreneurs because it implies easy access to close-by emotional and practical support.

The third dimension, the multiplexity of the relationship, considers the purposes for which a network contact is used. The firms we study are predominantly small in size, such that the owner-manager plays the most important role as decision maker (Reijonen & Komppula 2007). They tend to use their personal social networks for their firm, thereby linking and integrating their private networks and business-related network contacts. This may lead to an overlap of their private and business lives, and maybe also to a further intertwin-

ing of their personal and business networks over time (Johannisson 2011; Spence 2016). Our fine-grained data allow for an exploration of whether contacts are used for private purposes, business purposes or both – and in particular of how a change in multiplex relationships, serving both private and business purposes, relates to firm performance.

We use data from two waves of the *Survey on the Social Networks of Entrepreneurs* (SSNE). These data were collected in 2008 and 2014 among 183 entrepreneurs who own a firm in a Dutch residential neighbourhood, and who live in or in close proximity to the neighbourhood in which their firm is located. The dataset includes detailed information on the entrepreneurs, on the characteristics and performance of their firms, and on the composition of their social networks. The entrepreneurial network data is collected by asking the entrepreneur specific questions about every singular network relationship. This allows us to examine network changes over time in terms of network stability (the number and types of remaining network contacts) and network renewal (the number and types of lost or newly added network contacts) and how this relates to firm performance.

This chapter is structured as follows. In the next section, we elaborate on the dynamic nature of the networks of entrepreneurs located in residential neighbourhoods and its relation to the success of their firms. Based on the literature, we formulate hypotheses to be empirically tested. In section three we describe the data and research methods in detail, while in section four we present and discuss our empirical findings. We finish the chapter with conclusions and suggestions for future research.

5.2 THEORETICAL PERSPECTIVE

The social networks in which entrepreneurs are embedded provide access to new or additional resources that complement the firm's internal resource base (Granovetter 1985; Lavie 2006; Schutjens, Mollenhorst & Volker 2015). The ability to draw resources from network contacts and thereby gain benefits is often denoted as 'social capital' (Davidsson & Honig 2003; Stam, Arzlanian & Elfring 2014). Below we first discuss theories and empirical findings on how social networks of entrepreneurs are related to firm performance. Next, we explore to what extent the association between network stability or change and firm performance differs for relationships that vary in terms of (a) relationship strength, (b) relationship locality, and (c) relationship multiplexity.

5.2.1 Network resources and firm performance

There is ample theoretical and empirical work on the importance of social networks in relation to firm performance (Hoang & Yi 2015; Westlund & Adam 2010). The neighbour-

hood-based firms we examine in this study are predominantly small in terms of number of employees. This implies that they have relatively small internal resource bases, which makes access to external resources extremely valuable. Through network contacts, entrepreneurs gain access to different types of resources, such as market information, financial capital, or knowledge on innovation in products, services or processes (Brüderl & Schussler 1990; Hoang & Yi 2015). These networks can consist of individuals, such as partners, family members or friends, but also of more distant and superficial social contacts and links to other firms (BarNir & Smith 2002). Research on small-sized businesses indicated a positive association between the firm's social capital accessed through social networks and firm performance in different stages of the firm life course (Chell & Baines 2000; Stam, Arzlanian & Elfring 2014; Watson 2007). This supports the claim that having network contacts that provide access to external resources is beneficial for the success and development of small businesses (Cooke 2007).

5.2.2 The benefits of network stability and change

For quite some time, the scientific discussion on the benefits of social networks for firm performance has lacked a dynamic perspective that acknowledges the changes within the social networks of firms and entrepreneurs (Jack 2010). Lamine et al., (2015) acknowledge that entrepreneurial networks are not necessarily stable and may change over time. Depending on their needs, entrepreneurs can add new contacts and thereby enlarge their network. It may even be true that entrepreneurs decrease their network, when some network contacts and especially the resources they bring may become obsolete. Mostly, existing network ties are exchanged for new ones, resulting in a rather similar network size but quite different network composition (Greve & Salaff 2003; Lamine et al,. 2015). Network change and network dynamics should thus not only be studied by focusing on changes in network size, but also by examining compositional changes over time and even more precisely by the exploration of network change: stable, replaced or renewed network relationships (Afandi, Kermani & Mammadov 2017). Insights in such changes and variations may contribute to an in-depth understanding of how entrepreneurial networks change and how such changes relate to firm performance.

The addition of new contacts and the disappearance of existing relationships (Parida et al., 2017) link to the 'business network approach' as discussed by Slotte-Kock and Coviello (2010), which considers the entrepreneurial network to be continuously in motion. Other authors have also looked at network change over time, often related to different phases of the firm life course, whereby a new phase in firm development would require different or additional resources (Jack, Drakopoulou Dodd & Anderson 2008). Lechner and Dowling (2003), for instance, introduced a model of network development based on different phases in the firm life course. As firms move from one phase of the life course to the next,

the need for certain resources changes, for instance because they need new technologies or additional financial capital to accommodate further growth. Entrepreneurs may also want to limit their dependence on particular network contacts and expand their network (Lechner & Dowling 2003; Sullivan & Ford 2014).

However, next to the widely accepted benefits of new or additional relationships for firm development, new contacts also have their disadvantages. New relationships are often more arm's-length or market-based compared to more long-term relationships, and are in general characterized by lower levels of trust and less social obligations or moral coercion than the relationships they have replaced (Arregle et al., 2015; McKeever, Anderson & Jack 2014). Limited trust between partners can lead to an increase in transaction costs for the entrepreneur, such as the cost of monitoring the resource exchange (Huggins & Johnston 2010). Furthermore, turning new contacts into strong and enduring trust-based relationships can be time-intensive and costly (Kreiser, Patel & Fiet 2013). Thus, network stability and the intensification of existing relationships reflect the endurance of social relationships that fosters interpersonal trust and may ease (low-cost) exchange of resources (Davidsson & Honig 2003; Welter 2012), while at the same time, being 'over-embedded' in long-term and trust-based relationships may hinder the access to new knowledge and or the pursuit of new (business) opportunities due to redundant information or the moral obligation toward prolonged network contacts (Arregle et al., 2015; Welter 2012).

Based on the aforementioned theoretical notions, we expect both network stability and network change to be beneficial for the performance of small-sized firms. Moreover, both network change and network stability can occur simultaneously, because entrepreneurs can change parts of their networks, by adding new network contacts, whilst keeping other parts stable. As such, the entrepreneurial network can be comprised of both long-term network contacts as well as newly added network contacts. Accordingly, we formulate the following two hypotheses:

Hypothesis 1a: The number of network contacts that remain in the entrepreneurial network over time is positively associated with firm performance.

Hypothesis 1b: The number of contacts newly added to the entrepreneurial network is positively associated with firm performance.

5.2.3 Network stability, change and the strength of relationships

Granovetter (1973), one of the first scholars who discussed the strength of social ties, posed that relationship strength depends on four factors: the time that is spent with the network contact, the emotional intensity, the intimacy, and the reciprocity of the relation-

ship (Granovetter 1973; Schoonjans, Van Cauwenberge & Vander Bauwhede 2013). A relationship is considered as 'strong' when it is characterized by high levels on these four factors, especially regarding emotional intensity and the time spent together (Martinez & Aldrich 2011; Schoonjans, Van Cauwenberge & Vander Bauwhede 2013). Strong ties are also characterized by a high level of trust due to the longevity of the relationship. High levels of trust in relationships lower transaction costs and enable the easy exchange of resources such as financial capital, advice and information (Smith & Lohrke 2008; Uzzi 1996). In the literature on entrepreneurial performance, this is one of the most often discussed benefits of having strong relationships: family members and other close personal contacts often have faith in the entrepreneur and the entrepreneurial endeavour and are therefore willing to provide support in terms of advice, emotional support, practical help or financially invest in the firm in times of need. This makes strong relationships an important resource base in the early stages of the firm life course when small-sized and young firms have to overcome the liabilities of newness and smallness (Afandi, Kermani & Mammadov 2017; Brüderl & Preisendörfer 1998). But strong relationships can also be beneficial and provide access to valuable external resources in later phases of a firm's development if these close contacts introduce them to their own social contacts, thereby providing a mechanism to find new weak ties (Jack 2005).

But strong relationships can also have disadvantages. One of the main drawbacks of strong relationships is information redundancy: individuals who are closely connected often know the same people and these overlapping networks hinder the access to new knowledge (Arregle et al., 2015). Furthermore, high levels of reciprocity and trust are required for maintaining strong ties and the creation and maintenance of such relationships takes time and other resources (Martinez & Aldrich 2011). Additionally, too much reliance on strong ties may lead to over-embeddedness, as previously discussed. Based on the aforementioned theoretical notions, we expect that, on the one hand, the stability of strong relationships is beneficial for the performance of small-sized firms. On the other hand, the addition of new strong relationships is expected to decrease firm performance, because of information redundancy. Accordingly, we formulate the following two hypotheses:

Hypothesis 2a:The number of strong contacts that remain in the entrepreneurial network over time is positively associated with firm performance.

Hypothesis 2b: The number of strong contacts newly added to the entrepreneurial network is negatively associated with firm performance.

5.2.4 Network stability, change and the locality of relationships

The second relationship characteristic we consider is locality, i.e., whether or not the social contact lives in the same neighbourhood as the entrepreneur. As it is generally understood that economic action is embedded in social structures, the notion of social embeddedness can also be related to a certain geographical space. Dahl and Sorenson (2009) found that "entrepreneurs appear to be embedded in their communities" (2009, 179) and speak about entrepreneurs as "embedded locals" (2009, 173). These authors concluded that the entrepreneurs' decision on where their firm should be located was primarily based on proximity to family and friends and to a lesser extent on economic factors. Interestingly, this wish for proximity was not based on the potential practical help these family members and friends may offer, but in particular for emotional considerations (Dahl and Sorensen 2009). In a similar vein, Korsgaard, Ferguson and Gaddefors (2015) introduce the term 'placial embeddedness' to describe the way entrepreneurs are embedded in their local geographical context. This understanding of the local context brings benefits to entrepreneurs in terms of opportunity creation and access to network contacts and resources.

The work by Dahl and Sorenson (2009), Korsgaard, Ferguson and Gaddefors (2015) and others shows that entrepreneurs can draw specific firm benefits from being embedded in the local social context (Andersson & Larsson 2016). This may in particular hold for the group of neighbourhood-based entrepreneurs that participated in our survey. Because they both work and live in the same local spatial context, they can become strongly embedded in this geographical context over time, as large parts of their daily lives take place within this context. This, in turn, makes getting acquainted with other local residents or firms more likely, as spontaneous or by-chance encounters are more common on a small local scale. Also, spatial proximity within the local context eases staying in contact and allows for frequent contact to take place, which may lead to stronger local social networks and easy access to practical support (Mollenhorst, Volker & Schutjens 2009).

However, other studies present a more nuanced view on the importance of local social contacts for the performance of firms (Guest & Wierzbicki 1999; Schutjens & Volker 2010). Kuhn, Galloway and Collins-Williams (2016), for example, found that many entrepreneurs in particular used online platforms to get advice from peers which led to better firm performance, although they also found that other local entrepreneurs were the most commonly used source for peer-based advice. Additionally, some studies point to potential negative effects of strong local networks, such as over-embeddedness within the local context (Welter 2012). In sum, there is no consensus in the literature on which effects, the potential benefits or negative effects of strong local networks, outweighs the other. But because the neighbourhood-based entrepreneurs that are central in this study have a local focus from the outset, as their private and business lives are take place within the

same neighbourhood environment, we explore the potential positive effects of stable local relationships and of an increase in the number of local contacts. Accordingly, we formulate the following two hypotheses:

Hypothesis 3a: The number of local network contacts that remain in the entrepreneurial network over time is positively associated with firm performance

Hypothesis 3b: The number of local contacts newly added to the entrepreneurial network is positively associated with firm performance

5.2.5 Network stability, change and the multiplexity of relationships

Third, we consider relationship multiplexity which relates to whether network contacts are used for private purposes, business purposes, or both. This is particularly important for the small-sized and neighbourhood-based businesses in our sample, whose networks are expected to be mainly composed of network contacts of the firm owner-manager. The entrepreneur is the (small) business' key actor and as such, key source of network contacts for the firm (Gherhes et al., 2016). Moreover, the close personal relation of the owner-manager to the firm leads to an intertwining of network contacts that are used for business and private purposes; private contacts such as family, friends and acquaintances also become important contacts for business-related purposes (Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017). This, in turn, may lead to stronger and more stable networks over time, as some contacts become indispensable through their help on private and business-related issues. Accordingly, we expect that in particular the stability of multiplex relationships is important for firm performance. Network contacts who are used for both private and business purposes are defined here as 'multiplex relationships'. Academic studies on the multiplexity of relationships (in the literature sometimes also referred to as 'role overlap', multi- functionality or multi-strandedness) in entrepreneurial networks is scarce (Bliemel, McCarthy & Maine 2014; De Beer, Mollenhorst & Schutjens 2016; Hoang & Yi 2015; Mollenhorst, Volker & Flap 2014), making this an interesting venue for in-depth research on network composition and compositional change over time. We formulate the following hypotheses:

Hypothesis 4a: The number of multiplex network contacts (i.e., serving both private- and business-related purposes) that remain in the entrepreneurial network over time is positively associated with firm performance

Hypothesis 4b: The number multiplex network contacts (i.e., serving both private- and business-related purposes) newly added to the entrepreneurial network is positively associated with firm performance.

5.3 METHODS AND DATA

For this study, we use data from 183 entrepreneurs who participated in two waves of the Survey on the Social Networks of Entrepreneurs (SSNE), collected in 2008 (SSNE1) and 2014 (SSNE2) in the Netherlands. The SSNE is an extension of the Survey on the Social Networks of the Dutch (SSND), which started in 1999 and focuses on the networks of inhabitants of Dutch neighbourhoods (Volker & Flap 2002). Following the design of the SSND, the SSNE covered a sample of 161 neighbourhoods in 40 Dutch municipalities, corresponding to four, in one case five, neighbourhoods per municipality. For each neighbourhood in the sample, a maximum of 12 private firms were contacted by telephone. During this initial contact it was established whether the entrepreneur also lived in or near the neighbourhood, in order to create a sample of entrepreneurs who both work and live within the same local context. Following the definition by Sleutjes and Schutjens (2012), an entrepreneur was considered 'neighbourhood-based' if he or she either lived at the same address or within ten minutes walking distance from the firm (Sleutjes & Schutjens 2012). In the first wave (SSNE1), 385 entrepreneurs located in 145 different neighbourhoods participated in the survey, which corresponds to a response rate of 38% of all firms that complied with the research requirements of being neighbourhood-based firms (N=1,031). In 2014, all 385 respondents of the first wave were asked to participate again in the second wave (SSNE2), and 214 of them agreed to do so. For the analyses in this chapter, we had to exclude 31 cases, either because the entrepreneur was no longer in business or

Table 5.1: The five name-generating questions

Name-generating question	Entrepreneurs are allowed to mention a person	Entrepreneurs are allowed to mention a firm	Total number of new contacts allowed to mention
1: With whom did you discuss important matters regarding your firm and its development during the last six months?	Yes	No	5 names
2: With which firm does your firm cooperate formally on a frequent basis?	No	Yes	3 names
3: If you are doing odd jobs for the firm and you need someone to give you a hand, e.g., sending invoices or cleaning up, whom do you ask for help?	Yes	Yes	3 names
4: If you are doing an odd job at home and you need someone to give you a hand, e.g., to carry furniture or to hold a ladder, whom do you ask for help?	Yes	No	5 names
5: With whom did you discuss important personal matters during the last six months?	Yes	No	5 names

Source: SSNE1, 2008 and SSNE2, 2014 (cf. Burt 1984; Bailey & Marsden 1999).

due to non-response to one of the items used in the current analyses. As a result, we have 183 entrepreneurs of whom information is available on their social networks in 2008 and 2014, firm performance, and personal and firm characteristics[23].

5.3.1 Network data description

To delineate the network of entrepreneurs, we use five so-called name-generating questions (Burt 1984): two on network contacts used for business purposes, two on private contacts, and one on inter-firm cooperation contacts. The first two sets of questions relate to both emotional and practical support. In Table 1 we present for each name-generating question the type(s) of contacts and the total number of new network contacts that could be mentioned. For each question, they could also mention a network contact which was already mentioned in a previous question. The limit to the maximum number of new network contacts may have led to data truncation problems. After additional checks were performed[24], the potential truncation problem was ruled out for all name-generating questions except the one on inter-firm cooperation. For this particular question a number of 47 entrepreneurs (26%) in 2008 and 39 entrepreneurs (21%) in 2014 mentioned the maximum allowed number of three inter-firm contacts (and as such, in reality may have 4 or more).

After having delineated the networks, a series of name-interpreting questions were asked for each network contact mentioned, regarding both characteristics of the relationship (such as type and strength of relationship), and personal information of the network contacts (such as age, gender and place of residence). This renders detailed information on every unique network contact of each entrepreneur in 2008 and 2014. Additionally, in order to compare the answers of the entrepreneurs in both the SSNE1 and SSNE2, the respondents in the SSNE2 were shown the list of network contacts they had mentioned in 2008. This was done in order to make sure no important network contacts were missed and to get insights into the reasons why some contacts had disappeared from the network of a respondent. This allows us to study network dynamics in terms of compositional changes, as we know exactly which network contacts remained in the network, which

23 The group of entrepreneurs present in both waves of the SSNE is compared with the total group of all participants in the SSNE1 to check for potential sorting and selection biases. The only significant difference we found relates to the economic sector: survey drop-out is relatively more likely among firms active in the manufacturing and building sector.

24 Per name-generating question, it was checked whether and how many entrepreneurs mentioned the total number of new network contacts that was allowed. For questions 1, 3, 4 and 5 the change of truncation is deemed negligible or non-existent. Only for the second name-generating question truncation may be an issue. These additional analyses are readily available upon request.

disappeared from the network, and which contacts are added to the network, between 2008 and 2014.

5.3.2 Key variables and measurements

Firm performance is defined as firm sales in 2014. Although different measures of firm performance exist, we follow previous research in which firm sales is often used as a proxy for firm performance (Reijonen & Komppula 2007). While the question on firm sales was asked in both waves of the SSNE, we focus on firm sales in 2014. Participants in the SSNE were asked to place their firm's performance in one of seven sales categories, ranging from below €10,000 (category 1) to over €500,000 (category 7) (see Appendix 5A.1). Consequently, firm performance is an ordinal variable with unequally spaced categories, which calls for the use of ordered logistic regression analyses rendering the most reliable and correct estimations. The entrepreneurs are quite evenly spread over the different firm performance categories, with the third category (€20,000 – €49.999) being the largest with 39 entrepreneurs (21%). The smallest category is the below €10,000 category, where 20 entrepreneurs (11%) fall into.

Network variables

We consider a number of network variables: network size, the number of remaining/stable social contacts, and the number of newly added social contacts. Total network size (network size in 2008, respectively in 2014) is defined as all unique network contacts mentioned in response to the five name-generating questions. The number of remaining/stable contacts then is measured as the number of network ties that were mentioned in both 2008 and 2014 and thus remained in the entrepreneurial network over time. The number of newly added contacts is measured as the number of contacts that were mentioned in 2014 but not in 2008. We have also calculated the number of lost or disappeared network contacts, being those who were mentioned in 2008 but not in 2014. Because of redundancy issues, the latter indicator is only included in the tables with descriptive results.

Strength, locality and multiplexity of relationships

The variable for relationship strength is constructed using the information from a number of different questions in the SSNE. In case the specific contact mentioned is a person, relationship strength is based on the levels of trust and attachment between the respondent and this contact. Contacts that are trusted and liked 'very much' are considered 'strong relationships'. In a similar vein, business contacts (i.e. the contact is not an individual person) are considered strong if the entrepreneurs trust them 'very much'. Because we lack information on the level of attachment for business contacts, we use frequency of contact as a second indicator of relationship strength. Relationships with business contacts then are considered as 'strong' if they are highly trusted and if they have at least weekly contact.

For both waves of the SSNE we know the location of each individual network contact and whether (s)he lives nearby the respondent. A network contact is defined as a local contact if he or she resides within a one kilometre range from the location of the respondent's firm. Likewise, a business contact is defined as a 'local contact' if the firm is located within a one kilometre range from the respondent's firm. This allows us to distinguish between local contacts (i.e. residing or located in the same neighbourhood) and non-local contacts.

The indicator for relationship multiplexity is calculated for contacts that were mentioned in response to four of the five different name-generating questions. Contacts mentioned in response to name generating question 5 are businesses, not individual persons, and thus could not be mentioned as part of the private network. As such, these relationships cannot be measured as multiplex. For all contacts mentioned in response to the other four name-generating question, we assessed whether she or he was mentioned for private-related purposes (questions 3 and 4 in Table 5.1) as well as for business-related purposes (questions 1 and 2 in Table 5.1). If so, the relationship is considered a multiplex relationship.

Control variables

In the multivariate analyses, we control for several characteristics of the individual entrepreneurs and their firms that may affect network changes, firm performance, or both. We consider the age of the entrepreneur in 2008, measured in years. We include a dummy variable for a relocation between 2008 and 2014 (0 = no; 1 = yes), which could mean a change of the private address, of the firm's location, or both. We control for the different strategic goals of entrepreneurs with regard to firm sales (sales goal), firm profit (profit goals) and firm investments (investment goal). Information on the strategic goals is taken from the 2008 survey and measured in dummies, with the value 1 indicating that the entrepreneur expected an increase or strong increase in respectively firm sales, firm profit or firm investments.

Five different firm characteristics are taken into account. First, the variable for years of existence of the firm (in 2008) was log-transformed to improve the interpretation of the outcomes. The presence of a business partner (dummy variable, coded 1 if a business partner is present) is the second firm characteristic. The third is the number of daily customer visits the respondents have reported, as a means of controlling for the extent to which the specific neighbourhood location is relevant for the firm's activities. This dummy variable is coded '1' if the firm is daily visited by at least one customers. The fourth firm characteristic is the level of local competition, estimated by the respondents themselves as the number of competitors located in the same area. Finally, we consider the sectorial orientation, because as it relates to firm success (Chell & Baines 2000). We measure sectorial orientation as a categorical variable with the sector 'retail' as reference category. The other categories

are: catering industry; personal services and private education; business services; cultural activities; manufacturing and building; and 'other'.

5.4 FINDINGS

5.4.1 Network stability and change

Before linking the changes in the networks of entrepreneurs to the performance of their firms in terms of sales, it is important to consider the variation among entrepreneurs regarding the level of network contact stability and change. The total number of network contacts mentioned in 2008 and 2014 are portrayed in Figure 5.1. The average network size is slightly larger in 2014, which can also be seen from the distribution of the bars. Most entrepreneurs mention between three and six network contacts, but there are also some who have up to 15 network contacts.

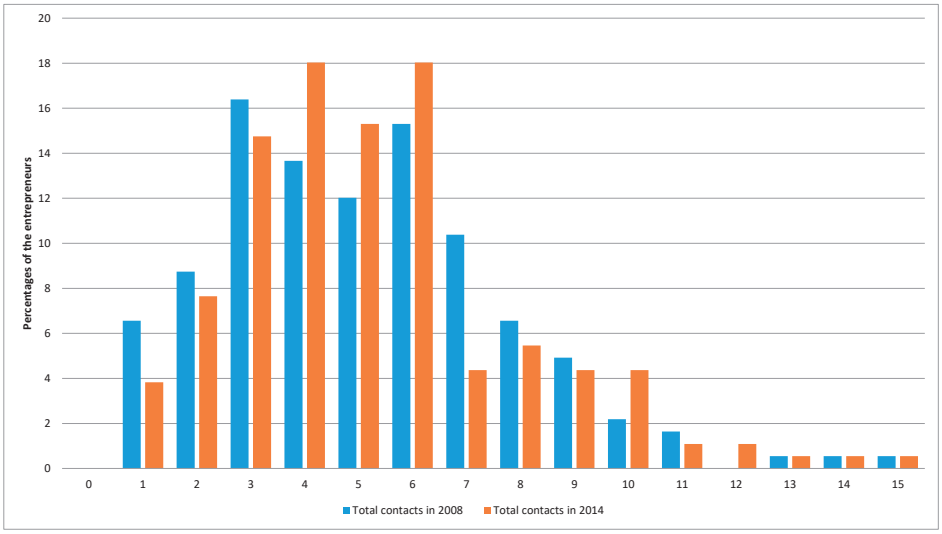


Figure 5.1: Total number of network contacts in 2008 and 2014 (N=183 entrepreneurs)
Source: SSNE1, 2008 & SSNE2, 2014.

Figure 5.2 shows that 17 percent of the entrepreneurs reported no remaining network contacts at all, which means that they completely changed all network contacts between 2008 and 2014. Most entrepreneurs, however, had one contact or two contacts remaining in their network (33% and 28% respectively). Only about 20% of the entrepreneurs reported four remaining contacts or more. This shows that underneath the limited change in network size over time, as indicated by Figure 5.1, quite some turbulence exists among network contacts.

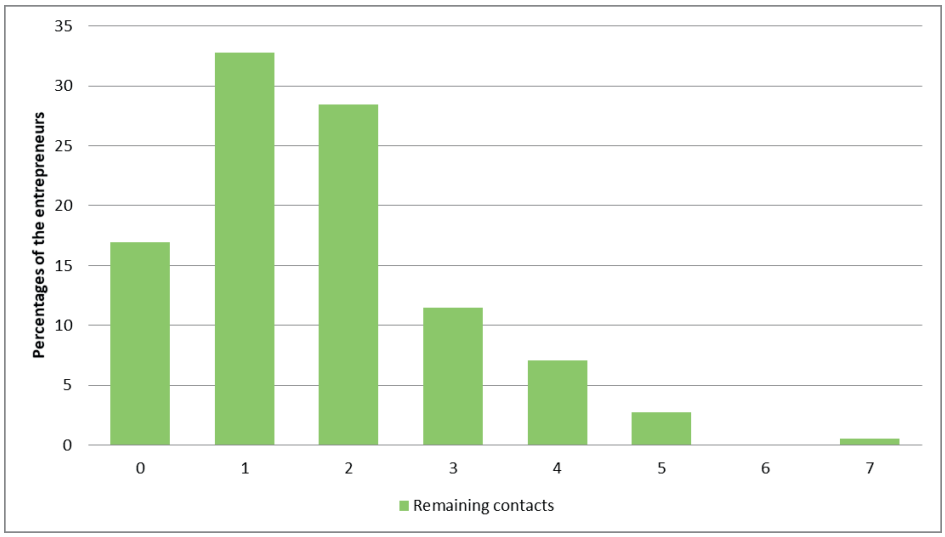


Figure 5.2: The share of remaining network contacts between 2008 and 2014 (N=183 entrepreneurs)
Source: SSNE1, 2008 & SSNE2, 2014.

The average number of network contacts, including individual persons and other businesses, as reported by the 183 entrepreneurs was about five in both waves of the data collection (5.12 in 2008 and 5.26 in 2014). But while the average network size remained rather stable between 2008 and 2014, there are many changes at the relationship level. As presented in Figure 5.3, between 2008 and 2014 a total number of 311 network contacts remained, while 626 contacts were not mentioned again at one of the five name-generating questions, and 651 contacts were added to the networks of the 183 entrepreneurs.

These numbers indicate that in 5 years' time, around one third of the network contacts stayed, while two third has disappeared, making the entrepreneurial networks highly turbulent.

Wave 1 – 2008		**Wave 2 – 2014**	
937	network members	626	Lost network members (= not mentioned again at one of the five name-generating questions)
		311	Remaining network members (= mentioned again at one of the five name-generating questions)
		651	New network members
	Total	962	Network members

Figure 5.3: Network change at the relationship level (N=183 entrepreneurs)
Source: SSNE1, 2008 & SSNE2, 2014.

Table 5.2 shows that the composition of the networks in terms of the share of strong relationships (about 43%), local contacts (about 38%) and multiplex relationships (about 26%) was also quite similar in both years. Some interesting findings stand out when linking the three dimensions of network composition to the numbers of remaining, disappearing and newly added network contacts.

As compared to disappeared relationships, the remaining relationships are relatively more often strong relationships (61% versus 34%), more often local contacts (58% versus 27%), and more often multiplex relationships (39% versus 18%). This tells us that – as one may expect – strong, local and multiplex relationships are indeed relatively stable, but also that strong and multiplex relationships do not remain in the entrepreneurial network by definition. And if we look at the local network contacts, it is interesting to see that many network contacts reported in both years were not located in the same neighbourhood as the entrepreneur (62% in 2008 and 61% in 2014). Thus, the local environment is not the most important source of network contacts for the neighbourhood-based entrepreneurs.

5.4.2 Network change and firm performance

Table 5.3 presents the results of a number of ordered logit regression models on the association between network contact stability and change between 2008 and 2014 and firm performance (i.e. sales) in 2014. In the various models, we particularly focus on network contact stability and change in relation to the strength, locality and multiplexity of relationships. Models 1 to 6 contain only the network variables, while Models 7 to 12 also contain the various control variables for entrepreneur and firm characteristics.

In the base model (model 1), initial network size in 2008 is related to firm performance. No significant association is found in this model.

Model 2 indicates that the number of remaining network contacts and the number of newly added contacts are also not significantly associated with firm performance. Models 3 and 4 show that differentiating between strong and weak relationships and between local and non-local relationships does relate to firm performance in 2014. Also, the numbers of remaining and new strong and/or local relationships are not significantly associated with firm performance. Regarding the multiplexity of relationships, models 5 and 6 show a positive and significant association between the number of remaining multiplex relationships and firm performance, suggesting that staying in contact with network members who serve both private and business-related functions positively relates to firm performance.

Table 5.3: Ordered logit models on the link between network stability/change and firm performance (measures in sales)

	Model1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Network variables												
Network size in 2008	0.02											
Number of remaining relationships in 2014		0.08						0.01				
Number of new relationships in 2014		-0.01						0.01				
Number of remaining strong relationships in 2014			0.02			-0.09			-0.08			-0.04
Number of new strong relationships in 2014			0.04			0.13			0.06			0.14
Number of remaining local relationships in 2014				0.008		-0.06				-0.17		-0.12
Number of new local relationships in 2014				-0.08		-0.22				-0.14		-0.28*
Number of remaining multiplex relationships in 2014					0.39*	0.47**					-0.12	-0.05
Number of new multiplex relationships in 2014					0.37	0.38					0.35	0.36
Control variables												
Age of the entrepreneur							-0.04*	-0.04*	-0.04*	-0.04*	-0.04*	-0.04*
Age of firm (log)							0.63***	0.63***	0.63***	0.60***	0.63***	0.59***
Relocation (between 2008-2014)							0.73	0.73	0.75	0.68	0.77	0.66
Goal: Sales growth (in 2008)							0.6	0.6	0.6	0.61	0.72	0.71
Goal: Profit growth (in 2008)							0.15	0.15	0.11	0.13	0.05	-0.02
Goal: investments (in 2008)							0.18	0.17	0.19	0.22	0.16	0.25
Business partner (in 2008)							0.90**	0.90**	0.92**	0.97**	0.95**	1.04*
Customer visit (1 or more per day in 2008)							0.57	0.57	0.62	0.67	0.6	0.7
Local competition (number of local competitors in 2008)							-0.002	-0.001	-0.002	-0.002	-0.001	-0.002

Table 5.3: Ordered logit models on the link between network stability/change and firm performance (measures in sales) (*continued*)

	Model1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Sector of firm ('retail' is reference category , in 2008)												
Catering industries							-0.37	-0.36	-0.32	-0.49	-0.42	-0.47
Personal services and private education							-2.07***	-2.07***	-2.05***	-2.15***	-2.09***	-2.19***
Business services							-0.22	-0.24	-0.26	-0.13	-0.26	-0.22
Cultural activities							-0.76	-0.77	-0.77	-0.77	-0.76	-0.7
Manufacturing and building							-0.49	-0.51	-0.45	-0.39	-0.52	-0.41
Other							0.19	0.16	0.22	0.24	0.23	0.25
Threshold 1	-2.01	-2.01	-2.03	-2.19	-1.73	-1.91	-2.42	-2.36	-2.47	-2.68	-2.44	-2.65
Threshold 2	-0.98	-0.98	-0.99	-1.16	-0.69	-0.86	-1.17	-1.11	-1.21	-1.43	-1.17	-1.37
Threshold 3	-0.03	-0.04	-0.05	-0.22	0.26	0.1	0.03	0.1	0.01	-0.22	0.05	-0.13
Threshold 4	0.57	0.57	0.55	0.39	0.87	0.71	0.82	0.89	0.8	0.58	0.84	0.67
Threshold 5	1.27	1.27	1.25	1.09	1.6	1.45	1.8	1.87	1.77	1.57	1.82	1.67
Threshold 6	2.02	2.03	2.01	1.86	2.39	2.25	2.81	2.88	2.78	2.6	2.85	2.72
Log likelihood	-351.49	-351.20	-351.44	-351.14	-348.31	-346.61	-312.78	-312.74	-312.38	-311.61	-311.28	-308.98
N	183	183	183	183	183	183	183	183	183	183	183	183

**p<0.05 **p<0.01 ***p<0.001*

Source: SSNE1, 2008 & SSNE2, 2014.

Regarding the control variables, model 7 shows a number of significant associations with firm performance. Firm performance (i.e. firm sales) is significantly higher among young entrepreneurs than among older entrepreneurs, while the opposite applies to the age of firms: firms that are longer in business reported higher performance than younger firms. Furthermore, firm performance is higher among entrepreneurs who run their business with a partner than among solo-entrepreneurs, and relatively low among firms active in personal services and private education as compared to firms active in other sectors. Then, if we take these control variables into account (models 8 to 12), we see just a few changes regarding the results on the link between network changes and firm performance. It appears that the number of new local relationships is negatively associated with firm performance, while the association between the number of remaining multiplex relationships and firm performance is no longer statistically significant. In other words, we do not find any statistically significant support for our hypotheses regarding the link between network contact stability or change and firm performance. Instead the final model (Model 12) indicates that only adding new local relationships is negatively associated with firm performance.

The findings presented in Table 5.3 are not in line with findings from previous studies that were based on data from both waves of the SSNE. In this chapter, the presumed association between network change and firm performance (i.e. firm sales) is not found. It seems that the individual network contact changes as such do not have a significant effect on firm performance, but that the net changes in the entrepreneurial networks do lead to improved firm performance over time. Thus, although the networks of the neighbourhood-based entrepreneurs studied here are quite turbulent, in the end the entrepreneurs manage to end up with a network composition which is beneficial for their firm performance over time.

5.5 DISCUSSION AND CONCLUSION

This chapter responds to the call for applying a dynamic perspective in studying entrepreneurial networks (Jack 2010; Lamine et al., 2015) and their effects on the development and success of firms. Following Jack, Drakopoulou Dodd and Anderson (2008), Huggins et al. (2015) and others, we argued that the resource needs of firms with regard to firm development change during the firm life course, bringing on changes in the social networks of entrepreneurs and as such affect firm performance. According to the literature, there are two opposite performance effects of entrepreneurial network renewal: either positive, as it eases the access to new knowledge and resources; or negative, as well-known, trusted relationships are lost. We expected high levels of changes in the personal networks of

entrepreneurs and aimed to find out how the stability and change of relationships that vary in strength, locality and multiplexity are related to the performance of small-sized business in residential neighbourhoods. To uncover what is happening 'below the surface' of net changes in network size and composition, we addressed the question: *To what extent are network relationships of small-sized businesses and their owners stable or changing over time and how does network contact stability and change relate to the performance of these firms?*

Empirical analyses on data from the *Survey on the Social Networks of Entrepreneurs* revealed that, while the average network size remained rather stable, there was indeed little stability and much turbulence in the network contacts of the 183 entrepreneurs who owned a small-sized firm in a Dutch residential neighbourhood. Only one third of the network contacts they used for practical and/or emotional support (either private- and/or business-related) remained in their networks between 2008 and 2014, while the other two-third was replaced by other network members. Although we were not able to examine the exact replacement of network contacts, i.e. whether a new contact was added to the network as a replacement for a particular disappeared contact, we could give an insight in the number of contacts that disappeared and the number of contacts that were newly added over time. Differences between entrepreneurs in the level of network stability and renewal, however, turned out not to be associated with firm performance, measured in sales. This means that we find no support for hypotheses 1a and 1b. So, although previous studies have addressed the importance of network change, for instance in relation to different phases of the firm life course (Jack, Drakopoulou Dodd & Anderson 2008; Lechner & Dowling 2003), our analyses provide no confirmation for the idea that network contact stability or network contact change affects firm sales. Only a number of control variables were significantly associated with firm performance: higher firm performance levels were reported for older firms and by those having a business partner, while lower levels of performance were reported for firms active in the sectors 'personal services and private education'.

We also found no significant association between firm performance and the different relational dimensions; strength (hypotheses 2a and 2b), locality (hypotheses 3a and 3b) and multiplexity (hypotheses 4a and 4b). With regard to relationship strength, this implies that our findings are not in line with the literature on the importance of strong ties, neither regarding the positive nor the potential negative effects (Arregle et al., 2015; Granovetter 1973). However, we have not explored the effect of 'weak ties' in this chapter, which are often considered as an alternative and counterbalance for the potential weaknesses of strong ties. This may be an interesting avenue for future research.

Furthermore, the assumption that for entrepreneurs located in residential neighbourhoods, the number of local contacts and their firms' performance is positively related, does not hold. The opposite actually seems to be true, as we found a negative association between the number of newly added local contacts and firm performance. This may point at a lock-in situation where an entrepreneur primarily focuses on the local environment for network contacts, which, in turn, does not benefit firm performance. However, only a small majority of remaining network contacts are local contacts, which does not provide enough ground to be able to speak of an increased importance of the local environment as a source for network contacts over time. This outcome is in line with research questioning the importance of the local environment as a source of resources, such as the work by Kuhn, Galloway and Collins-Williams (2016).

Finally, no evidence was found for a positive association between network contact multiplexity and firm performance. So, the assumed benefits of having network contacts that serve both private and professional functions do not seem to exist: remaining nor new network contacts with this double role are related to firm performance.

Our results imply that investigating network composition turbulence is interesting, but not necessary when aiming at understanding firm sales, especially not when small-sized, neighbourhood-based firms are concerned. Implications for policy are that efforts to link up entrepreneurs and extend their network in order to increase firm sales, are obsolete. Entrepreneurs seem to retain and add network contacts purposefully, linking to new contacts and tapping into new resources, and dispose of other contacts, but this is not related to their businesses' sales. In stimulating firm sales there is no need to stimulate network contact change nor stability as such.

Limitations and future research

As this chapter reveals high levels of change in the networks of entrepreneurs, we would welcome in-depth studies that examine the reasons underlying these network changes. Our data allow for a detailed description of network changes at the level of individual relationships, which has great added value in itself. It would be very informative to also examine specific behaviour and strategic considerations underlying the network contact changes. Qualitative research may open up the black box of entrepreneurial network contact turbulence and its link to firm success.

Furthermore, the focus of this chapter on entrepreneurs located in residential neighbourhoods in the Netherlands limits the transferability of our findings to other groups and spatial contexts. It would be interesting to compare this group of entrepreneurs to entrepreneurs operating from business sites outside the neighbourhood of residence and

examine whether the latter group has a more spatially dispersed network scope. Additionally, as we find no evidence that local network contacts relate more to firm performance than non-local contacts , it may be interesting to explore other contexts in which network contacts could be found. For instance, the effect of digital networks and the digital infrastructure for finding and maintaining network contacts can form an interesting avenue for future research.

Although the two waves of the SSNE provide many interesting data on the changes in the networks of the entrepreneurs who participated both in 2008 and 2014, this also means that there is a selection bias of entrepreneurs who were still in business in 2014. As a consequence, we only examine entrepreneurs whose firms successfully survived in this period of time. The fact that these entrepreneurs managed to stay in business in this specific period of economic turmoil may be a sign of above average firm performance and perhaps also firm management. Additional analyses and comparisons with entrepreneurs outside this time period can provide new and interesting insights.

Finally, this chapter uses firm sales as a measure for firm performance, which is a very widely used measure in the literature (Reijonen & Komppula 2007). However, other measures could also be considered, such as firm size in terms of number of employees or firm profits, but also more subjective measures such as reached firm objectives or the satisfaction of the individual entrepreneur with the firm's activities and performance.

In sum, what this chapter shows is that entrepreneurial networks are quite turbulent, more than analyses of only net network change suggest. The overall network composition remains quite stable, while many individual network contacts do change over time. Apparently, there is much more happening 'beneath the surface' in the social networks of the entrepreneurs. This may point at strategic networking of entrepreneurs who aim to find contacts that fit their current needs, while at the same time dismissing of network contacts that have lost their added value. However, these changes do not directly relate to firm performance measured by firm sales. Nevertheless, we also found no negative associations, so no signs of either too little network contact stability or too little network contact change for firms to perform well. This outcome can be related to other studies which show that entrepreneurs, whether consciously or unconsciously, create a 'relational mix' of ties that fits their needs (Hoang & Yi 2015; Jack, Drakopoulou Dodd & Anderson 2008; Martinez & Aldrich 2011). As such, entrepreneurs seem to combine both network contact stability and network contact change in a way that is beneficial for their firms.

APPENDIX CHAPTER 5

Appendix 5A.1: Correlation matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1)	Firm performance (sales in 2014)	x																	
(2)	Number of remaining relationships in 2014	0,06	x																
(3)	Number of new relationships in 2014	-0,04	-0,18	x															
(4)	Number of remaining strong relationships in 2014	0,01	0,70	-0,18	x														
(5)	Number of new strong relationships in 2014	0,03	-0,09	0,67	-0,04	x													
(6)	Number of remaining local relationships in 2014	0,02	0,65	-0,21	0,56	-0,15	x												
(7)	Number of new local relationships in 2014	-0,08	-0,17	0,66	-0,18	0,55	-0,26	x											
(8)	Number of remaining multifunctional relationships in 2014	0,14	0,60	-0,18	0,42	-0,16	0,39	-0,14	x										
(9)	Number of new multifunctional relationships in 2014	0,11	-0,24	0,33	-0,20	0,29	-0,18	0,29	-0,16	x									
(10)	Age of the entrepreneur	-0,27	-0,08	-0,04	-0,07	-0,09	0,04	-0,03	-0,21	-0,07	x								
(11)	Age of firm (log)	0,28	-0,07	-0,17	-0,04	-0,14	0,03	-0,15	0,06	0,03	0,19	x							
(12)	Relocation (between 2008-2014)	0,05	-0,02	0,06	0,01	0,02	-0,03	-0,04	0,02	-0,01	-0,09	-0,16	x						
(13)	Goal: Sales growth (in 2008)	0,26	0,03	0,03	-0,01	0,12	-0,04	0,06	0,17	0,01	-0,39	-0,11	0,10	x					
(14)	Goal: Profit growth (in 2008)	0,23	0,00	0,10	-0,02	0,16	-0,09	0,06	0,11	0,07	-0,36	-0,05	0,05	0,78	x				
(15)	Goal: investments (in 2008)	0,15	0,03	0,04	0,02	0,01	-0,06	0,10	0,08	0,06	-0,21	0,04	0,15	0,29	0,32	x			
(16)	Business partner (in 2008)	0,34	0,13	-0,02	0,15	-0,02	0,17	-0,01	0,15	-0,09	-0,22	0,11	-0,02	0,10	0,12	0,03	x		
(17)	Customer visit (1 or more per day in 2008)	0,23	0,13	-0,20	0,16	-0,11	0,16	-0,06	0,24	0,03	-0,10	0,19	-0,14	0,13	0,15	0,10	0,20	x	
(18)	Local competition (number of local competitors in 2008)	-0,05	-0,06	0,01	-0,05	0,02	-0,04	-0,01	-0,04	-0,07	0,06	0,04	-0,08	-0,02	0,02	0,13	-0,01	-0,09	x
(19)	Sector: Retail	0,21	0,03	-0,17	0,04	-0,06	0,04	-0,02	0,09	-0,05	-0,05	0,11	-0,11	0,17	0,09	0,05	0,09	0,35	-0,10
(20)	Sector: Catering industry	0,13	-0,02	-0,09	0,02	-0,09	-0,09	-0,04	0,08	0,07	-0,06	0,11	0,13	0,11	0,05	0,08	0,05	0,24	-0,06
(21)	Sector: Personal services and private education	-0,26	0,08	-0,12	0,04	-0,08	-0,01	-0,14	-0,03	-0,04	0,09	-0,05	0,01	0,02	0,05	-0,02	-0,14	0,14	0,04
(22)	Sector: Business services	-0,03	-0,12	0,24	-0,17	0,23	-0,03	0,17	-0,13	0,06	-0,07	-0,20	0,06	0,03	0,02	0,05	-0,09	-0,29	0,03
(23)	Sector: Cultural activities	-0,14	-0,08	-0,05	-0,08	-0,09	-0,13	0,03	-0,13	-0,07	0,20	0,06	-0,08	-0,20	-0,26	-0,04	-0,02	-0,12	0,09
(24)	Sector: Manufacturing and building	-0,05	0,01	-0,05	0,09	-0,06	0,08	-0,06	0,01	0,02	-0,01	0,05	0,10	-0,07	-0,02	-0,06	-0,04	-0,11	-0,06
(25)	Sector: Other	0,10	0,14	0,09	0,12	-0,02	0,08	-0,04	0,15	0,00	-0,02	0,05	-0,07	-0,11	0,01	-0,06	0,17	-0,07	0,06

Source: SSNE1, 2008 & SSNE2, 2014.

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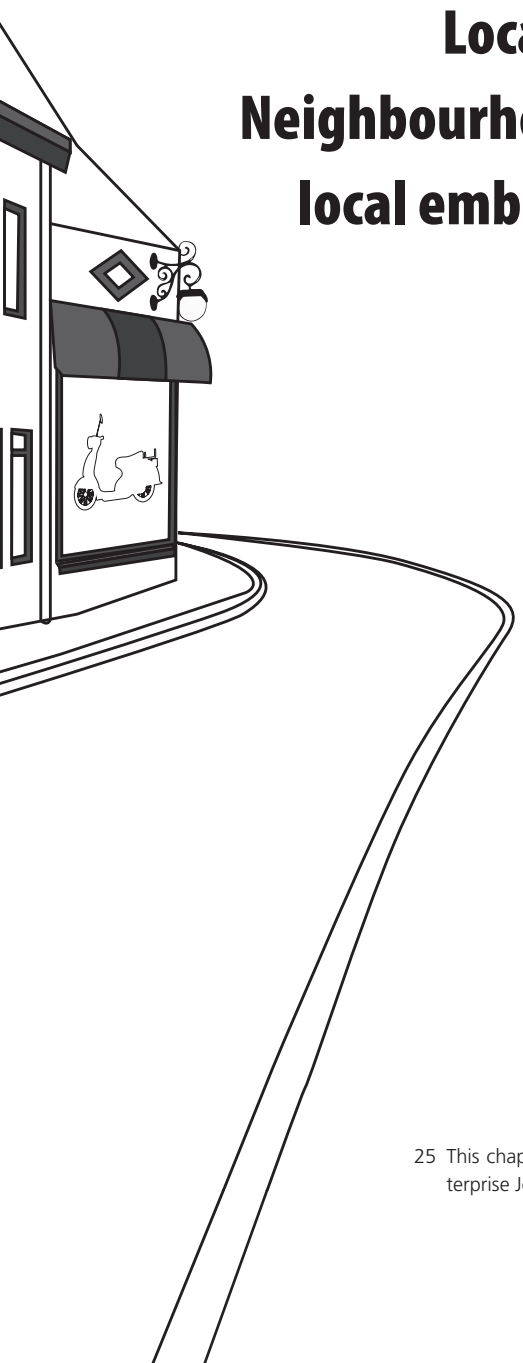
Chapter 6

Local Social Value Creation by Neighbourhood-based Entrepreneurs: local embeddedness and the role of social networks[25]



25 This chapter is an extended version of the paper forthcoming in the Social Enterprise Journal.

6.1 INTRODUCTION

For more than a decade, urban residential neighbourhoods in the Western world have been rediscovered as important economic areas (Folmer & Kloosterman 2017). Information Communication Technology developments and sectoral shifts toward service- and knowledge-based economic activities have facilitated the rise of businesses in homes and neighbourhoods. These entrepreneurs often live at the same address as or in close proximity to their firms, making the local environment an important context for both their professional and private daily lives (Steyaert & Katz 2004). In other words, the residential neighbourhood has become a place for both living and working for many entrepreneurs. At the same time, the actions of these entrepreneurs feed back into their neighbourhoods. It has been argued that the presence of these local entrepreneurs leads to sustainable and liveable neighbourhoods (Jacobs 1961) because they provide both economic benefits, e.g., through the provision of employment or goods and services, and social benefits, such as philanthropic giving or the creation of meeting places in the neighbourhood (Andersson & Larsson 2016; Campin, Barraket & Luke 2013; Reuschke et al., 2017). However, their actual effect remains unclear (Müller 2016). Here, entrepreneurs are considered who run commercial and often small-sized firms located in residential areas in the Netherlands. This chapter argues that these entrepreneurs not only contribute to their neighbourhood economy but also are involved in addressing social problems and creating social change (Campin, Barraket & Luke 2013).

Different drivers of social value creation by small-sized businesses are found in the literature. Broadly speaking, these drivers can be divided into four types: personality, organizational (or firm), contextual and issue characteristics. The chapter proposes a fifth factor as part of the contextual characteristics—the local social networks of neighbourhood-based entrepreneurs. By being located in the neighbourhood, interaction with other local businesses and residents is stimulated, which may lead to the creation of strong local social networks (Boschma 2005). These local social networks not only directly affect local social value creation but also affect such value creation in an indirect and moderating fashion. Concerning the former, neighbourhood-based entrepreneurs may become locally embedded through their networks, and this local embeddedness may lead to social value creation, which is the indirect effect of local social networks (Kummitha 2017; Reuschke et al., 2017). Considering the moderating effect, these local social networks strengthen and influence the four types of social value creation drivers, thereby influencing the relationship between these drivers and local social value creation. The following research questions are therefore explored:

To what extent are neighbourhood-based entrepreneurs involved in local social value creation, which types of characteristics drive their behaviour and what is the role of their (local) social networks therein, both as an indirect effect through local embeddedness and as a moderating effect on the relationship between the different drivers and local social value creation?

In addition to this chapter's conceptual contribution from focusing on the direct, indirect and moderating effects of local social networks on local social value creation, the chapter makes two empirical contributions to the literature. First, the growing presence of entrepreneurial activities in residential neighbourhoods and their potential for local social value creation can motivate policymakers to promote home-based or neighbourhood-based entrepreneurship. Policymakers in many Western countries are interested in stimulating bottom-up initiatives that create social value and improve liveability in (urban) neighbourhoods, particularly in times of decreasing government investments and economic austerity (Haugh 2005; Lumpkin et al., 2013). However, there is little empirical research on the civic engagement of the group of entrepreneurs located in residential neighbourhoods and the drivers of their behaviour (Steenbeek & Schutjens 2014). Second, this chapter explores the different drivers of social entrepreneurial activities in general by providing empirical evidence, which to date has remained scarce and lacks recent contributions (Boluk & Mottiar 2014; Korsgaard & Anderson 2011; Maïr & Martí 2006).

This chapter focuses on the Netherlands, where between 1999 and 2006, over 35% of all firms in urban areas were localized in residential districts (Raspe et al., 2010). The empirical analysis is based on 18 in-depth interviews with neighbourhood-based entrepreneurs in the Dutch cities of Amersfoort and 's-Hertogenbosch, supplemented with expert interviews and desk research. The qualitative research is explorative and seeks to investigate the social value creation behaviour of these entrepreneurs, the drivers of their behaviour and the particular role of their (local) social networks therein.

This chapter is structured as follows. The next section discusses the theoretical foundations of the study and focuses on different forms of entrepreneurial value creation and its different drivers. In section three, the research design and analytical strategy are explained, followed by the findings based on the interviews in section four. The chapter finishes with a conclusion and discussion, leading to the identification of avenues for future research.

6.2 THEORETICAL PERSPECTIVE

6.2.1 The social value of entrepreneurship

There is an active and ongoing debate in the literature on the social value of entrepreneurship to society (Austin, Wei-Skillern & Stevenson 2006; Zahra & Wright 2016). The literature often distinguishes between profit-driven entrepreneurship and social entrepreneurship. When social value creation is purposeful and explicitly anchored in a firm's business model, the literature usually speaks of a social enterprise (Austin, Wei-Skillern & Stevenson 2006; Zahra et al. 2009). If the firm is not a social enterprise, the entrepreneurial endeavour is considered traditional or commercial entrepreneurship (Boluk & Mottiar 2014). Recently, however, it has been argued that every form of entrepreneurship entails social value creation, although entrepreneurial activities can differ in their goals and outcomes (Zahra & Wright 2016). This chapter follows this line of reasoning through its focus on the local social contribution of commercial entrepreneurs located in residential neighbourhoods.

When considering local social value creation, in broad terms, a distinction can be made between direct and indirect forms. Direct forms of local social value creation include pecuniary and material contributions, such as cash donations, sponsorships or the offering of free goods and services. Furthermore, certain actions of the entrepreneurs (and their employees) can also directly lead to local social value, for example through volunteering activities in local organizations or through community service such as holding local office (Kilkenny, Nalbarte & Besser 1999; Santana 2005 p. 778). Indirect means through which neighbourhood-based entrepreneurs can contribute to local social value creation include local business cooperation and boosting the local environment's image. Through their presence, the entrepreneurs can act as role models, which can lead to the creation of an entrepreneurial culture (Malecki 2009; Andersson & Larsson 2014), or firms can become local meeting places and thereby stimulate local social interaction (Schutjens & Volker 2010). Other examples include the role businesses and their employees can play in controlling and preventing disorder in their local neighbourhood context. In their work on this topic, Steenbeek et al. (2012) found a positive relationship between the firm presence in a neighbourhood and the level of neighbourhood disorder; thus, these businesses might have a positive effect on the of the neighbourhood.

Thus, some examples of local social value creation by local entrepreneurs exist. However, additional and more-recent illustrations are necessary to obtain a clear insight into how commercially driven neighbourhood-based entrepreneurs may have a social impact on their local environment and into what drives their behaviour.

6.2.2 Drivers of social value creation

In discussing relevant factors that drive social entrepreneurial behaviour, the four types mentioned by Lepoutre and Heene (2006) form a suitable starting point. These authors have adopted the four factors from previous studies, as described in their literature review of the international literature on small business social responsibility (SBSR). Therefore, although Lepoutre and Heene (2006) were not the first to coin these four types of behavioural drivers of SBSR, their article brings together much of the previous work on this topic. The authors discuss the following four antecedents of SBSR behaviour: the personality characteristics of the entrepreneur, the organizational (i.e., the firm) characteristics, contextual characteristics and the characteristics of the social issue at hand. In the following, each of these drivers is briefly discussed.

Personality drivers

The first group of characteristics mentioned by Lepoutre and Heene (2006) consists of an entrepreneur's personality and personal beliefs. For instance, Omorede (2014) discusses "an intentional mind-set" when discussing the personality features that drive an individual's social entrepreneurial behaviour. In their often-cited model of social entrepreneurial intention, Maïr and Noboa (2006) describe how the background of a person is important in explaining social value creation intentions. They mention the following four personality antecedents: empathy, moral judgment, self-efficacy and social support (Maïr & Noboa 2006, pp. 126). The first two antecedents are drivers of perceived desirability of social action, whereas self-efficacy and social support are enabling factors for this type of behaviour (Hockerts 2017; Maïr & Noboa 2006). Recently, Hockerts (2017) has added prior experience with social issues as an antecedent to the model of Maïr and Noboa (2006). As shown by Hockerts (2017), previous experience with social organizations can trigger social entrepreneurial intentions and strengthen the other four antecedents toward social intentions. Therefore, one's personality, ethical and personal beliefs and experience in addressing social issues can trigger social entrepreneurial action (Campin, Barraket & Luke 2013; Hockerts 2017). Furthermore, a large stream of literature focuses on common traits entrepreneurs tend to have, such as the desire to be their own boss, a propensity for risk taking and individual responsibility and how these traits differ between traditional and social entrepreneurs (Beugelsdijk & Noorderhaven 2005; Ruskin, Seymour & Webster 2016; Smith, Bell & Watts 2014). These traits may also be important drivers of the local social behaviour of entrepreneurs.

Organizational drivers

Firm characteristics form the second group of determinants of social value creation. The literature on corporate social responsibility (CSR) is a useful source of information on the specific firm characteristics that drive the social value creation of businesses (Zahra &

Wright 2016). CSR has become a popular topic in business and management research in recent decades, and in the last ten years, an increasing number of studies have focused on CSR in small- and medium-sized enterprises (henceforward, SMEs) because firm size is an important firm characteristic driving CSR (Kechiche & Soparnot 2012; Lepoutre & Heene 2006). Small-sized firms are less prone to have a CSR strategy than larger firms are because of the perceived costs and limited resource availability (Kechiche & Soparnot 2012). Therefore, many SMEs are willing to contribute to (local) social value creation only when they can obtain benefits for their firm. Santana (2015, p. 770) calls this evaluation the 'calculation mechanism' because for some firms, the main driver of social value creation is that they believe their involvement in social practices will eventually benefit their own company. Other organizational characteristics that are of interest in explaining SBSR include the firm's business sector, the role the owner-manager plays within the firm and the firm's role within its value chain (Campin, Barraket & Luke 2013).

Contextual drivers

Contextual factors simultaneously shape and are shaped by entrepreneurs and their firms (Kummitha 2017; McKeever, Anderson & Jack 2014). Lepoutre and Heene (2006) distinguish among economic, institutional and social contextual characteristics. The economic context, such as the general welfare level or level of (un)employment, can be a driver of social value creation because these circumstances lead to opportunities or a need for the delivery of social value or social change (Lepoutre & Heene 2006). For example, local issues, such as unemployment or a lack of certain amenities, are likely to be more prevalent in neighbourhoods with lower socio-economic scores in comparison to neighbourhoods with higher scores. Furthermore, in such depleted contexts, different types of entrepreneurial activities thrive, such as 'community businesses', which are focused on creating both profit and social value (Johnstone & Lionais 2004).

Examples of the institutional environment influencing social value creation by entrepreneurs include governmental practices and initiatives, and industry culture, mores and stakeholders' pressure, particularly at the local level (Campin, Barraket & Luke 2013; Pathak & Muralidharan 2016). For instance, Hazenberg et al. (2016) found that different social enterprise ecosystems exists within Europe, each giving support to different types of social enterprises.

Finally, social contextual factors are formed by the social relationships a firm has, such as firm external stakeholders, firm peers and the more informal social networks of the entrepreneurs themselves (Raymond et al., 2013). Networks provide entrepreneurs with access to resources and useful information for their firm, which is often called social capital. This capital can in turn be used for opportunity recognition, firm survival and firm development

(Hoang & Yi 2015). Raymond et al. (2013) call these relationships 'the social influences' that affect the business ethics of firm owner-managers. Both the formal and informal networks of entrepreneurs are important factors in the process of recognizing opportunities for social value creation or social change. In their chapter on local social entrepreneurship, Bosma, Schutjens and Volker (2016) study the role of neighbourhood level social capital in stimulating social entrepreneurial behaviour by using measures of the collective efficacy and social cohesion present at the neighbourhood level. Collective efficacy resembles (individual) self-efficacy; however, because the latter involves the individual perceptions of individual goal achievement, the former is measured by individual perception of collective goal achievement (Bosma, Schutjens & Volker 2016). Social cohesion is concerned with a strong sense of community, trust and organization within the local context (Bosma, Schutjens & Volker 2016). Whereas communities with high levels of efficacy and cohesion may stimulate social entrepreneurship, a lack of community action can also lead to the development of social entrepreneurial initiatives.

Social issue characteristics

The fourth group of factors discussed by Lepoutre and Heene (2006) includes features of the social issue at stake. Social problems range from local issues, such as litter or vandalism, to broader societal issues, such as structural unemployment or poverty (Trivedi & Stokols 2011, p. 25). Whether small-size firms recognize and experience similar or different social issues compared with their larger counterparts is often debated. On the one hand, it has been argued that SMEs have less resources and capacity to spend on discovering and solving local social issues (Campin, Barraket & Luke 2013). On the other hand, SMEs can be more 'alert' or sensitive to certain issues because they act upon their own experiences with a particular issue or because they rely more heavily on and have less power over their firms' stakeholders, such as employees, business partners and the local (business) community (Lepoutre & Heene 2006; Omorede 2014).

6.2.3 Local social network contacts as a fifth behavioural driver

However, whereas Lepoutre and Heene (2006) and, later, Campin, Barraket and Luke (2013) consider all four types of characteristics equally important, this chapter argues differently by placing more emphasis on the role of the local social networks of neighbourhood-based entrepreneurs. As argued by authors such as Omorede (2014) and Aragón, Narvaiza and Altuna (2016), social networks are important explanatory factors of SBSR. Aragón et al. study the heterogeneity of the social responsibility activities of SMEs by conducting both a literature review of previous work on this topic and a case study of four Spanish firms. They conclude that differences in SBSR are caused by the social networks of SMEs (Aragón, Narvaiza & Altuna 2016). Through this reliance on their social networks and the corresponding social capital accessed through these networks, SMEs are influenced by

their social contacts, for instance, in decision making or in sharing values and opinions (Andersson & Larsson 2016; Bosma, Schutjens & Volker 2016; Korsgaard & Anderson 2011). Therefore, it is interesting and informative to explore the influence of the local social networks for the neighbourhood-based entrepreneurs in this study.

The local social networks are assumed to have a direct effect, an indirect effect and a moderating effect. The direct effect has already been discussed as part of the social contextual characteristics. The indirect effect is linked to how local social networks can lead to local embeddedness, which is discussed below. The moderating effect is related to how local social networks can influence the relationship between the four types of drivers discussed by Lepoutre and Heene (2006) (i.e., personality, organizational, contextual and issue characteristics) and local social value creation behaviour. This effect is discussed in the final section of this theoretical perspective.

Indirect effect of local social networks

In addition to their direct effect, local social networks are also viewed as indirectly driving social value creation using another approach—through local embeddedness.

Following Jack and Anderson (2002, p. 463), embeddedness can be identified as "the nature, depth, and extent of an individual's ties into the environment". In addition, "social networks provide the mechanism for becoming embedded" (Jack & Anderson 2002, p. 483). For neighbourhood-based entrepreneurs, the local context may be an important source of network contacts and, accordingly, social capital because this context is where daily life and daily interaction occur (Dufays & Huybrechts 2014; Reuschke et al., 2017; Steyaert & Katz 2004). Due to their regular, often daily, local presence, neighbourhood-based entrepreneurs are able to build strong local relationships within their neighbourhoods. Spatial proximity in the neighbourhood facilitates face-to-face contact and consequently the building of trust between the entrepreneur and local network contacts (Bayer, Rossa & Topa 2008; Boschma 2005). Therefore, neighbourhood-based entrepreneurs are expected to have many local contacts and interactions, leading them to become increasingly embedded in the local social structures.

Local embeddedness is the process of becoming part of and interacting with the local social context. Additionally, it can be related to the feeling of attachment and belonging to a certain place. Korsgaard, Ferguson and Gaddefors (2015) have labelled this 'placial embeddedness'. This 'placial embeddedness' affects how local social issues are perceived and has a positive effect on how entrepreneurs leave their mark on the contexts in which they are present (Dufays & Huybrechts 2014; Korsgaard, Ferguson & Gaddefors 2015; Reuschke et al., 2017). In addition, as Kummitha (2017, p. 45) argues, "Embeddedness of-

fers a crucial mechanism to understand the constructs about the value creation mechanism in social entrepreneurship". Therefore, this chapter argues that local embeddedness is an additional driver of local social value creation by neighbourhood-based entrepreneurs because they are locally embedded through their close local connections with residents and other firms.

Moderating effect of local social networks

The local social networks of the neighbourhood-based entrepreneurs also influence the relationship between the four direct behavioural drivers and local social value creation. Concerning the personality characteristics, the moderating effect of the entrepreneurial social network can be related to the notion of social support, which is one of the antecedents of social entrepreneurial intention mentioned by Maïr and Noboa (2006). How a person is raised, educated and feels supported in his or her social entrepreneurial views largely shapes their motivation toward social change. Altruistic thinking and behaviour is partly formed by one's context, upbringing and background, making people different in their degree of altruism, as Tan et al. (2005) also argue. They distinguish six types of entrepreneurs based on a continuum of degrees of altruism, ranging from persons primarily profiting themselves to persons attempting only to bring profit to society (Tan et al., 2005, pp. 359). The propensity of an individual to create social value is positively influenced by the expected or received social support, which also drives one's "passion for the cause" (Hockerts 2017; Omorede 2014).

The firm's social networks interact with some of the organizational drivers of local social value creation. This interaction particularly holds for firm features linked to the local environment, such as local market orientation or the hiring of local employees (Schutjens & Steenbeek 2010). Entrepreneurs and firms with one or more of these features are likely to have many local connections and interactions, which in turn can stimulate local social value creation. In other words, local social networks act as a moderating force, strengthening the effect of organizational characteristics as drivers of local social value creation.

The influence of the economic, institutional and social contexts on local social value creation by entrepreneurs also depends upon the level to which an entrepreneur is connected to a specific socio-spatial context. Thus, entrepreneurial (local) social networks are thought to strengthen the effect of the contextual characteristics driving social value creation.

Finally, the characteristics of a social issue can also interact positively with the entrepreneurial (local) social networks. Through their social connections with their stakeholders, firms can sooner and more often become aware of local issues (Lepoutre & Heene 2006). Thus, neighbourhood-based entrepreneurs with many local network contacts may be more

aware of local social issues, which positively influences their local social value creation (Campin, Barraket & Luke 2013).

In an attempt to combine the abovementioned insights (Figure 6.1), this chapter argues that neighbourhood-based entrepreneurs are expected to create local social value. Different personality, organizational, contextual and issue characteristics are thought to directly influence their behaviour (Campin, Barraket & Luke 2013; Lepoutre & Heene 2006), as depicted by the arrows from each of the four characteristics on the left-hand side to local social value creation on the left. However, this study emphasizes the effect of local social networks as a behavioural driving force because previous studies have not sufficiently elaborated on this effect (Aragón, Narvaiza & Altuna 2016; Omorede 2014). Local social networks also have an indirect effect because they lead to local embeddedness, which is an additional driver of local social value creation (the horizontal dashed arrow in Figure 6.1). Furthermore, local social networks influence the direct effects of the four types of behavioural drivers on local social value creation. This moderating effect of the local social networks is portrayed by the dashed arrows. The empirical research presented in this chapter sheds more light on the relationships depicted in the conceptual model and explores the extent to which the argumentation holds.

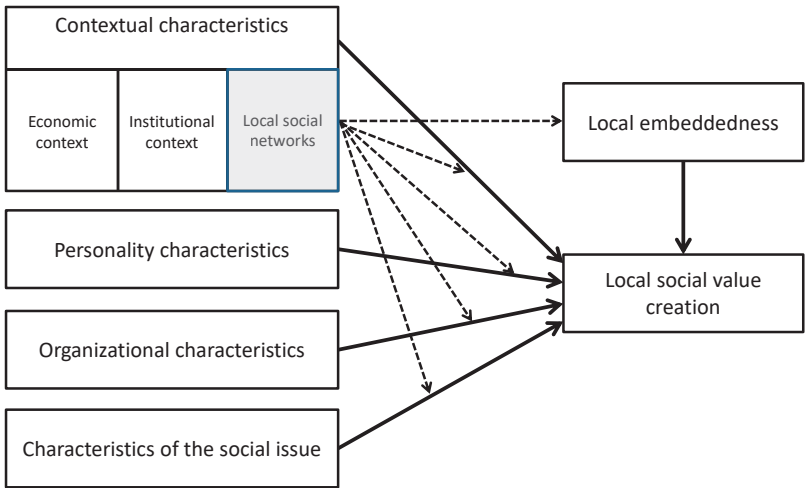


Figure 6.1: Conceptual model of the factors influencing the local social value creation of neighbourhood-based entrepreneurs

6.3 METHODS AND DATA

To explore the local social value creation by entrepreneurs located in residential neighbourhoods and the driving forces associated with their behaviour, qualitative empirical research has been conducted. Below, the research design of the empirical research is explained.

6.3.1 Research design

Entrepreneurs running commercially driven firms located in Dutch residential neighbourhoods form the research population of this chapter. Because this group is under-studied (Reuschke & Houston 2016), the empirical research presented here is primarily explorative. In-depth interviews were therefore selected as the most suitable method for the empirical research. Moreover, interviewing fits the aims of this study, leading to the collection of rich data and allowing for the exploration of individuals' interest, beliefs and motivation (Hennink, Hutter & Bailey 2011; Neergaard & Ulhoi 2007). Concerning the fieldwork approach, a case study design is used because it allows for the study of real-world cases in relation to case-specific contexts (Yin 2014, p. 16).

It was decided to compare neighbourhoods in two different Dutch cities to limit potential city-level influences. Therefore, the two selected cities had to be comparable in terms of population size. Furthermore, it was decided to exclude the four large cities in the Randstad area (Amsterdam, Rotterdam, The Hague and Utrecht) because these cities are frequently studied, which can influence the response rate of participants. Based on comparative desk-research, the cities of Amersfoort and 's-Hertogenbosch were ultimately selected. Both cities share common features, such as their central location in the Netherlands, although 's-Hertogenbosch is located farther to the south of the country, and both cities are also comparable in terms of population in general (approximately 154,000 inhabitants) and business population specifically (Gemeente Amersfoort 2018; Gemeente 's-Hertogenbosch 2018).

Next, the selection of the case study neighbourhoods was based on data from an existing survey—the Survey on the Social Networks of the Dutch (SSND). The SSND has been conducted four times over a period of 17 years—in 2000, 2007, 2013 and 2017. These surveys focus on the social networks of inhabitants of Dutch neighbourhoods. The surveys are administered in 160 Dutch neighbourhoods, ranging from rural to highly urbanized (Volker & Flap 2002). In each wave of the SSND, residents in these neighbourhoods are questioned concerning how they view their local environment, whether they have contact with their fellow local residents and whether they feel safe in their neighbourhood. Data from the third wave of the SSND (SSND3, conducted in 2014) were used in the case study selection for this study. The research design is aimed at selecting entrepreneurs located in contrast-

ing neighbourhoods with respect to local liveability scores. This selection criterion allows for comparisons between different social contexts in how neighbourhood-level differences influence local social value creation by the entrepreneurs. For this purpose, data from the SSND3 on neighbourhood level social cohesion and neighbourhood collective efficacy have been used (Bosma, Schutjens & Volker 2016). Social cohesion is concerned with a strong sense of community, trust and organization within the local context (Bosma, Schutjens & Volker 2016). Collective efficacy is similar to self-efficacy but on the collective level; thus, it relates to individual perception of collective goal achievement (Bosma, Schutjens & Volker 2016). By including these measures, the role of differences in local socio-spatial features in stimulating social entrepreneurial behaviour could be explored in this chapter. Based on the comparison between neighbourhood scores on social cohesion and collective efficacy and desk research, five neighbourhoods were selected as case study sites (Figure 6.2). For 's-Hertogenbosch, the neighbourhoods 'de Muntel' and 'de Rompert' were selected. The neighbourhood 'de Muntel' had a lower score on collective efficacy than did 'de Rompert', but 'de Muntel' scored more positively on social cohesion than 'de Rompert' did. In Amersfoort, three neighbourhoods were selected because in the participant recruitment phase, it proved difficult to find participants in the case study area 'Wiekslag'. Therefore, the 'Bloemenbuurt-Oost' was added as a case study area. Both neighbourhoods scored rather low on social cohesion and collective efficacy. The scores of these neighbourhoods contrasted with the 'Utrechtseweg' neighbourhood, which had a relatively high score for collective efficacy and social cohesion.

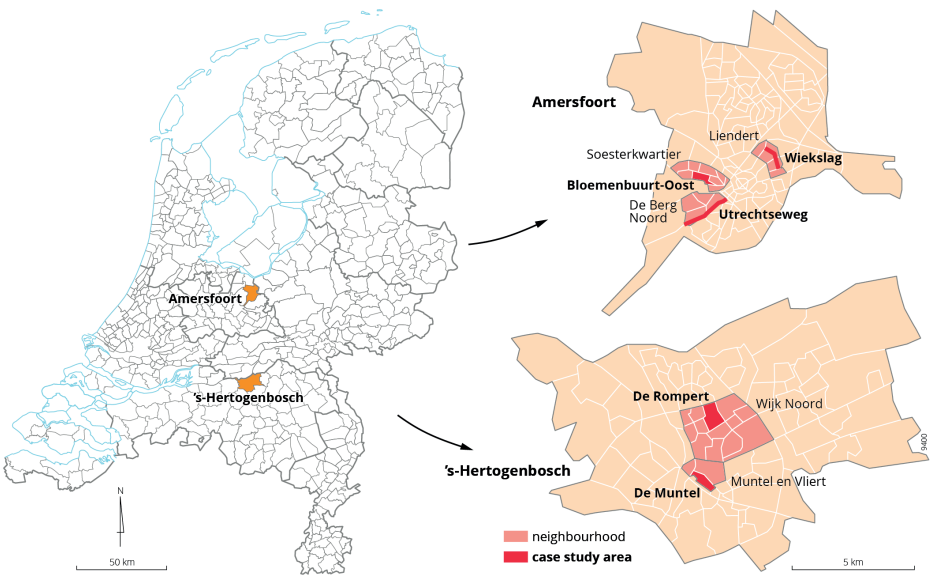


Figure 6.2: Map of case study cities and neighbourhoods

6.3.2 Participant selection and data representativeness

Preparatory visits to the different case study neighbourhoods were undertaken by the researcher in the spring of 2017. Next, firm address data from the LISA 2015 database (LISA 2015) were used to identify the sample of potential participants for the interviews. Large organizations such as public educational and health institutes or subsidiaries of larger companies were excluded from these data because these firm types are assumed to have a different, if any, relationship with the local neighbourhood environment. Such organizations are also quite unrelated to the small-scale economic activities on which this chapter focuses. Then, each remaining firm was checked by an online search to confirm that they remained in business. There were no other selection criteria, because the group of neighbourhood-based entrepreneurs is a very diverse group, making it difficult to base the participant selection on common features of these entrepreneurs and their firms. The selection procedure resulted in 100 potential participants in the five research neighbourhoods. In the summer of 2017, from June to August, these potential participants were initially contacted by email. Thereafter, they received up to two reminders via either telephone or email. The non-response rate was quite high, on average approximately 78% per case study. Eventually, 18 interviews with neighbourhood-based entrepreneurs were held. In each neighbourhood, at least 2 entrepreneurs were willing to participate, with a maximum of 7 interviews per neighbourhood (for de Muntel, 's-Hertogenbosch). In other words, the point of data saturation was not reached in every case study area (Hennink, Hutter & Bailey 2011, pp. 88-90). Therefore, the findings of the empirical research are interpreted in an explorative way. Related to the issue of both representativeness and transferability of the findings is that the original research design was to compare entrepreneurs who both live and work in the neighbourhood with entrepreneurs who only work in the neighbourhood. However, this matched-pair setup proved unfeasible due to the high non-response rate. As a solution, the option to match the different entrepreneurs on their firm sector was explored, but this alternative also proved unreachable. Therefore, rather than drawing comparisons between pre-defined groups of neighbourhood-based entrepreneurs, the ultimate aim is to explore patterns in the data and create groups based on the qualitative data.

6.3.3 Participant description

Although no general definition exists of 'the neighbourhood-based entrepreneur', the 18 interview participants show many commonalities. Some of the main descriptive features of the entrepreneurs and their firms can be found in Table 6.1. One important firm characteristic is whether an entrepreneur was fulltime or part-time involved with their firm, because it provides a sense of whether an entrepreneur may have had the time and the opportunity to be active in local social value creation. Most of the entrepreneurs worked full-time; in only four cases did the participants also have another employed position in addition to

Table 6.1: Description of the 18 interview participants

Interview	Fulltime or part-time entrepreneurship	Business sector	Home-based (yes/ no)	Time present in the neighbourhood (residency & firm location)	Years of existence of the firm
1	Part-time	Catering and hospitality	Registered at home, works outside neighbourhood	Entrepreneur: 10 years Firm: 2 years	2 years
2	Fulltime	Manufacturing and building	No, but rents office space in same neighbourhood	Entrepreneur: 2 years Firm: 1 year before renting office space	5 years
3	Fulltime	Personal services and private education	Registered at home, works outside neighbourhood	Entrepreneur: 4.5 years Firm: 4.5 years	5.5 years
4	Fulltime	Business services	Yes	Entrepreneur: 13 years Firm: 2 years	2 years
5	Fulltime	Personal services and private education	Registered at home, works outside neighbourhood	Entrepreneur: 27 years Firm: 27 years	29 years
6	Part-time	Personal services and private education	Yes	Entrepreneur: 13 years Firm: 6 years	6 years
7	Fulltime	Business services	No, but rents office space in same neighbourhood	Entrepreneur: 10 years Firm: 1 year before renting office space	6 years
8	Fulltime	Business services	No and resides elsewhere	Entrepreneur: Not applicable Firm: 16 years	18.5 years
9	Part-time	Personal services and private education	Registered at home, works outside neighbourhood	Entrepreneur: 3 years Firm: 3 years	11 years

Table 6.1: Description of the 18 interview participants (*continued*)

Interview	Fulltime or part-time entrepreneurship	Business sector	Home-based (yes/ no)	Time present in the neighbourhood (residency & firm location)	Years of existence of the firm
10	Fulltime	Business services	Yes	Entrepreneur: 8 years Firm: 4 years	4 years
11	Fulltime	Retail	Yes	Entrepreneur: 11 years Firm: 20 years	20 years
12	Fulltime	Retail	Yes	Entrepreneur: less than 1 year Firm: 96 years	96 years
13	Part-time	Personal services and private education	Yes	Entrepreneur: 6 years Firm: 1.5 years	1.5 years
14	Fulltime	Business services	Yes	Entrepreneur: 48 years Firm: 22 years	22 years
15	Fulltime	Catering and hospitality	No and resides elsewhere	Entrepreneur: Not applicable Firm: 1.5 years	1.5 years
16	Fulltime	Other	No and resides elsewhere	Entrepreneur: Not applicable Firm: 18.5 years	18.5 years
17	Fulltime	Manufacturing and building	No, but rents office space in same neighbourhood	Entrepreneur: 9 years Firm: 4 years before renting office space	8 years
18	Fulltime	Business services	No and resides elsewhere	Entrepreneur: Not applicable Firm: 26 years	26 years

their firms' activities. A second informative firm characteristic is the firm's business sector, which plays an important role in determining the market area of a firm, which, in turn, can be linked to the propensity for local social value creation (Boluk & Mottiar 2014; Campin, Barraket & Luke 2013). For instance, business services often have a non-local focus, whereas catering or retail may more likely be focused on local customers (Sleutjes & Schutjens 2012). Six participants worked in business services, five participants worked in personal services and private education, and the others were active in retail, manufacturing or the catering industry (Table 1). Next, it is interesting to include whether a firm is home-based. It may be easier for a home-based entrepreneur to contact other local residents because they are often present in the same area compared with entrepreneurs who are not home-based (Mason, Tagg & Carter 2011). Seven participants were considered truly home-based because their offices were in their own homes. Four other entrepreneurs had registered their firms at their home address but primarily worked outside the neighbourhood, for instance, at a client's office. Three entrepreneurs were not home-based but rented an office space in the neighbourhood of residence. Finally, four entrepreneurs had their firm located in the case study neighbourhood, but they themselves resided elsewhere.

Because the building of (local) social networks takes time, some features related to firm age and residency duration are added in Table 1. Interestingly, the majority of the entrepreneurs who also lived in the neighbourhood had been residing there for quite some time, with an average of 12 years. This average is comparable to the presence of the firms in the neighbourhood; on average, the participants' firms had been in the neighbourhood for 14 years. The years of existence of the firms ranged from 1½ years to 96 years, with the latter being an outlier. When excluding this firm, the average firm age is approximately 11 years.

6.3.4 Data collection and analysis

Before the interview, each participant was informed about the purpose of the interview and the anonymized handling of the data for analyses. Informed consent was obtained from all participants. The design of the interviews was semi-structured, which left sufficient room for the participants to voice their own ideas, opinions and notions (Neergaard & Ulhoi 2007). A topic list was used to ensure uniformity between the different interviews. Pilot interviews were conducted prior to the data collection with two neighbourhood-based entrepreneurs based in the Lombok neighbourhood in the city of Utrecht as a means of testing the interview guide and topic list. Based on these pilot interviews, revisions were made in the topic list. This alteration process continued during the data collection phase, because interviews led to new insights.

The interviews started with asking the entrepreneurs to indicate what they considered their local environment (with respect to the location of their firm) by demarcating it on a map of

their city. This map was used during the rest of the interview as an explanatory tool for the interviewees. This exercise also led to the creation of rapport between the participant and the researcher, which enabled the open exchange of knowledge and insights (Hennink, Hutter & Bailey 2011, pp.123-128).

The topic list shows that local social value creation was primarily explored openly by asking the entrepreneur to what extent he or she felt involved with the local environment and, as a follow-up question, whether and how this involvement resulted in specific activities with respect to local social value creation. In doing so, there was little interference of the researcher with respect to the specific definition of local social value creation and corresponding activities. Next, probing questions were asked concerning the different examples of value-creating activities consistent with the listing by Santana (2015). These activities are the following: a) corporate giving or corporate philanthropy; b) volunteerism by business owners and firm employees; c) sponsorships or practices whereby the business contributes to a social agency in return for the right to use the organization's name in its advertising; d) 'cause-related marketing', the advertisement of the firm's own product or services by supporting a social initiative; e) the donation of equipment; f) civic-society partnerships as a response to an 'institutional void'; g) public-private partnerships; and h) the sponsoring of foundations by a firm (Santana 2015, p. 778). Furthermore, the participants were asked why they undertook specific actions or showed specific behaviour to obtain an understanding of their behavioural drivers.

The interviews generally lasted approximately 60 minutes and were recorded using audio equipment. Thereafter, the interviews were transcribed, and this transcription was sent to the interviewee for them to check the text and give their consent for the use of the anonymized transcripts. The data were analysed with the use of the NVivo software. Several rounds of coding were conducted, applying both deductive and inductive code development (Hennink, Hutter & Bailey. 2011). Finally, triangulation was sought through a combination of desk research, policy documents, online company information and other secondary data sources, and seven expert-interviews with policymakers and local social workers (Yin 2014). These expert interviews are discussed below.

6.3.5 Expert interviews

In addition to the interviews with the neighbourhood-based entrepreneurs, information was gathered on the specific contextual characteristics of the five case study neighbourhoods. In addition to desk research on secondary data, such as statistical and policy documents from the local municipalities, interviews with a number of experts were conducted. In both Amersfoort and 's-Hertogenbosch, interviews were held with policymakers responsible for the functioning of the local business climate and stimulating entrepreneurship.

Furthermore, each of the five neighbourhoods had its own social worker, and these experts were interviewed on the social climate and social dimensions of the research neighbourhoods. The insights from these expert-interviews are not discussed in-depth in this chapter; instead, they are used in the interpretation of the findings from the interviews with the neighbourhood-based entrepreneurs.

6.4 THE ROLE OF LOCAL SOCIAL NETWORKS IN LOCAL SOCIAL VALUE CREATION

Based on the 18 interviews with neighbourhood-based entrepreneurs an image can be drawn of their involvement in the creation of local social value and the factors underlying their behaviour.

6.4.1 Social value creation in two groups

Broadly speaking, the interviewees can be categorized into two groups concerning their local social value creation; the first group consists of entrepreneurs not at all active in creating social value (neither local nor otherwise), whereas the second group is active in different forms of local social value.

The first and by far the smallest group of entrepreneurs (only three participants) stated that with respect to creating social value, they simply had no interest, time or financial ability. These entrepreneurs focused on their ongoing business activities, firm development and, in some cases, even firm survival. This group saw all forms of social value creation as a cost that they could not carry on top of their other business-related costs. Therefore, these entrepreneurs were not active in creating social value in any way. All of these entrepreneurs had a non-local market focus, which meant that they had no local customers. This focus was an important reason that they also had no interest in interacting with their local environment. As one entrepreneur stated, "it is not my goal to focus on the local environment for customers. Up to this day, I have not thought about what I could contribute to the neighbourhood with my business activities."

On the whole, this group comprised entrepreneurs who lived and ran their businesses in a specific neighbourhood for practical reasons, for instance, because they were already living there when they started their firm or because they found suitable business premises in that neighbourhood. In addition to locating their business in a particular neighbourhood, their interaction with the local environment remained limited, and they were satisfied with this situation. The local social embeddedness of this group can therefore be considered very low, which is also reflected in their lack of social value creation activities.

Examples of local social value creation

The majority of the participants (15 out of 18 entrepreneurs interviewed) stated that they were active in some form of social value creation. Although these entrepreneurs can be divided in two separate groups with respect to the drivers of their social behaviour, they mentioned similar examples of their local social value behaviour.

Most often, the entrepreneurs mentioned contributing to local liveability through social control and the improvement of the physical environment. Concerning the former, several entrepreneurs "kept an eye" on their local surroundings with respect to suspicious situations or disorder in the neighbourhood. Concerning improvement of the physical environment, several participants actively kept their local surroundings clean and neat through small actions such as picking up litter or larger improvements such as maintaining public green spaces. This positive contribution to local liveability was most common among entrepreneurs who received customers, both local and non-local, at their business location. Interestingly, this most frequently mentioned example of local social value creation is absent from Santana's enumeration (2015).

A second frequently mentioned example of local social value creation concerns sponsorships, both in terms of philanthropic giving and as a form of 'cause-related' marketing (Santana 2015). For example, one entrepreneur who owns a mobile coffee truck often served free coffee at charity events in the neighbourhood.

Other local social value creation practices were mentioned in only a few cases. Most participants became involved with local politics only if they felt personally involved with the local social issue at hand, either through their role as a resident or as a neighbourhood-based entrepreneur. One illustrative example is an entrepreneur who rented a workshop and office space located on a former industrial area near his own home. He was actively involved in the political process concerning the renovation of this area. To convey their wishes and needs to the local government, the entrepreneurs located at this industrial area also worked together and even started a committee that was actively engaged with the political decision-making process. The particular entrepreneur in this example was committed to the development of this area because his firm was located there and he wanted to keep his workspace once the area had been renovated.

Finally, none of the interviewees was active in organizing local activities. However, half of the participants stated that they would like to contribute to local activities as long as they were not the primary organizers.

6.4.2 Drivers of local social value creation

For the participants who were active in local social value creation, a number of main findings stand out. First, both personalities were found to be the main drivers of this behaviour. Second, with respect to the social context characteristics, only the local social networks were found to influence local social value creation. Local social networks had not only a direct and indirect effect, the latter through their effect on local embeddedness, but also a moderating effect on the other effects. Third, local social creation was also driven by local embeddedness originating from personal attachment and feelings concerning the local environment. These findings are discussed below.

Personality characteristics as primary driving force

Concerning the four groups of direct or main drivers studied in this paper (Figure 6.1), the personality characteristics are the most often mentioned by the participants. Several interviewees mentioned that their social actions were primarily driven by their personal interest in "*doing good*". They explained that they had a clear and profound personal motivation to make a positive social contribution to their local environment. One entrepreneur explained that he "*genuinely wishes others to do well and to get a second chance if they need it".* This attitude is why he often had interns who had dropped out of school or even had a criminal record, which made it difficult for them to find a job. He was committed to helping these individuals and giving them a second chance through giving them valuable work experience. This example and others from the other interviews showed that personality characteristics, such as empathy and moral judgment, were the most important drivers for these entrepreneurs to be active in local social value creation, which is consistent with previous findings (Kechiche & Soparnot 2012; Maïr & Noboa 2006; Omorede 2014).

Turning to the remaining three groups of drivers, the interview participants mentioned both organizational characteristics and the local social networks. The latter are discussed in the following section. Concerning the former, several interviewees stated that they were active in sponsoring local social activities or contributing in kind to local foundations or activities as a means of 'sharing' their business success with the local environment. However, the interviewees occasionally also used these actions to promote and generate local goodwill for their firms. For instance, the previously mentioned entrepreneur with the mobile coffee truck gave away free coffee not only to support a particular cause or charity but also to obtain free publicity for his firm. Thus, in some cases, the local social value creation actions of the entrepreneurs also were driven by calculative motives and were undertaken to gain benefits for their firms (Santana 2015).

The other types of characteristics, i.e., the economic context, the institutional context and the social issue characteristics, did not serve as drivers of local social value creation

for the neighbourhood-based entrepreneurs studied here. The absence of these drivers might be because the interview setup openly explored the behavioural drivers. Thus, the interviewees may simply have not thought of the institutional or issue characteristics as factors influencing their behaviour. Therefore, it would be going too far to state that these drivers play no role whatsoever. However, these drivers are clearly less important for this study's participants.

6.4.3 Presence of local social networks and local embeddedness

In the interviews, the entrepreneurs were questioned about their local social networks and whether they felt locally embedded concerning both their business and private lives. To demarcate the area they consider 'their local environment', each interview started with the interviewee explaining what they considered their local environment by drawing it on a map of their city. Interestingly, each of the participants' definition of their local area was different. Their demarcation, for instance, was based on places they visited on a daily basis or where they knew many people. In other words, their social networks influenced the interviewees own interpretation of their local environment. In the following, the local contacts that were mentioned by the interviewees are discussed.

Business-related local contacts

Starting with business-related contacts, meaning other entrepreneurs or formal business contacts, all participants stated that these contacts are important for their firm. Consistent with the literature on social capital (Ozdemir et al., 2016), the interviewees viewed their business-related network contacts as an extension of their own resources and skillsets. Additionally, business-related contacts were often used as sparring partners or as confidants to test ideas or sources of advice. Interestingly, the business-related contacts were generally not found locally; however, in many cases, they had been part of the social network of the participants for quite some time. These types of contacts had usually been acquired by the entrepreneurs in college or at previous employment. Over time, a trust-based relationship between them had grown, leading to the easy exchange of knowledge and advice. This relationship is consistent with the notion of social proximity introduced by Boschma (2005). The effect of spatial proximity, however, was not found to play a role for the participants, because none of them had met an important business-related contact in their current local (i.e., hood) environment. This implies that being present in the same local environment is not a sufficient condition for contact with other businesses to be established and relationships to be built over time. This is especially apparent when comparing home-based firms to the entrepreneurs who rent or own external business locations. Through their business location, it seems to be easier for this latter group to get in contact with other business which are located in the same building or in the same area. This is apparent in the example of the entrepreneur who started a committee with other entrepreneurs in the same area

to take part in that area's renovation process. Additionally, another entrepreneur who rented office space in his own neighbourhood and near his own home had gained many business-related contacts through this office location. "*In our building, there is a sphere of cooperation. We like to interact with each other with regard to our business activities, but also in our spare time. For instance, there are often drinks at the end of the workday. Via those social events, the business contacts have evolved into private contacts. This process was very organic*". In comparison, home-based entrepreneurs must actively get out to meet people. As one home-based entrepreneur stated, "*If you stay at home, you won't meet anyone; no potential clients or other businesses*".

However, formal cooperation relationships with other businesses were limited for the participants of this study. The main reason for this limitation is that the entrepreneurs preferred to operate on their own. Similarly, the level of membership in (local) business associations and memberships is found to be low. Only in a few instances had the entrepreneurs joined business networks, which in all cases were non-local networks, such as city-level networks of entrepreneurs active in the same sector. Most of the participants, however, said that they had made a trade-off between the costs and benefits of such associations and decided not to join. This choice had also been noticed by the experts in both municipalities. Particularly in the past period of economic downturn, many local business associations ceased to exist due to low membership. In the last year, both municipal experts perceived an increase in memberships. However, they both believed those numbers could and should increase. Both city governments are therefore actively engaged in trying to convince entrepreneurs to join business networks, although their efforts are often limited to telling entrepreneurs that those networks exist and explaining the benefits from joining. In the words of one expert, "*We cannot force firms to join such associations; we can only convince them of the worth of joining business networks*".

Other business-related contacts that were frequently mentioned included the firm's customers. Many interviewees stated that they had a stable client base that also acted as a source of new clientele. Only for a few interviewees was the local environment their only source of clients; the clients of most of the participants also came from either the same city or even from all over the country. In some cases, interviewees had even purposefully focused on non-local customers because they felt the local market was already too crowded. For instance, one entrepreneur who owns a photography studio decided to target customers outside his own city because there already were a number of well-known photographers in town. Therefore, he searched for clients via the Internet and social media.

Informal and private local contacts

The participants of this study also highly valued their informal network contacts, such as family, friends and acquaintances. No clear differences are found between the different entrepreneurs concerning the number of local and non-local private network contacts. What all participants do have in common is that they stated that their informal contacts were of great importance for their businesses as sources of information, advice and free help.

Most often mentioned in this instance was the romantic partner of the entrepreneur, who was consulted for advice, help and decision making. The partners of one in three participants assisted with their firm, although the degree of this support varied significantly. In addition, the romantic partner often offered a stable financial base because he or she had paid employment, allowing the entrepreneur to invest in the firm and have more leverage in times when business was slow. This form of stability also was important in the initial decision to start the firm.

In addition to the romantic partner, the family of the entrepreneur was also of great importance. They offered a source of support, both mentally and financially, strategic help and advice. Family members often also acted as initial customers. Through their networks, they also brought in new clientele. Non-family members, such as friends and acquaintances, were also mentioned as important informal contacts because they could supply certain skills, resources and information valuable to the firm.

When considering informal contact with neighbours, either specific neighbourhoods or neighbours residing on the same street, this situation varied from intensive daily contact for some to only greeting in passing-by for others. Interestingly, no differences were found here between home-based entrepreneurs and the non-home-based group. Moreover, contact with neighbours usually only included the neighbours in close proximity to the home or business location of the entrepreneurs but not with the entire street. Many entrepreneurs had exchanged keys with their direct neighbours and for instance take care of their plants or pets during holidays. Additionally, several interviewees stated that they were in contact with their neighbours because they receive the postal mail for their neighbours. As many of these entrepreneurs are present during the day, they have become a delivery and pick-up point for post. For multiple participants this proved to be an excellent way to keep in touch with their neighbours. The level of informal contact with neighbours seemed to be influenced by the lay-out of the street and houses, with entrepreneurs residing in high-rise flat buildings having less contact with their neighbours in comparison to entrepreneurs living in single-family houses. Additionally, the local social context on the

neighbourhood level also played a role here, which is addressed at the end of this section, when neighbourhood-level differences are discussed.

Concerning contact with residents within the neighbourhood as a whole, the interviewees had less contact with these locals than was expected. Again, spatial proximity is clearly insufficient for interaction to be established (Boschma 2005). This interaction occurs through other channels, such as through children who play together or go to the same local school or local sports clubs. The years of residence in a neighbourhood also play a role here, with entrepreneurs who have recently moved to a neighbourhood expressing that they had yet to become acquainted with other residents.

Selective contact

When considering the potential association between the entrepreneurs having local social network contacts and their being locally embedded, as explained in the theoretical perspective of this chapter, two interesting findings from the interviewees stand out.

First, the entrepreneurs stated that they felt connected to their neighbourhood primarily through their informal (i.e., personal) networks. The participants had only limited contact with other locally based firms. If there was any contact, it was often driven by personal rather than business considerations. Several entrepreneurs explained that they had good contact with their direct neighbours who might incidentally also own a firm. This contact, however, was limited to personal purposes. In a few instances, the participants formally cooperated with other firms or entrepreneurs in their neighbourhood. Additionally, few interviewees were part of non-local business networks. In these networks, they could find likeminded people who shared a common ground and who benefited their firm, for instance by providing access to some forms of social capital. Thus, the neighbourhood-based entrepreneurs are careful in selecting their network contacts. As one entrepreneur explained, *"Getting in contact with others is part of the game, but as I am my own boss, I can decide for myself who I would like to invest in. And I only invest in those network contacts that I think have potential for me and my business."* Moreover, the entrepreneurs who were part of non-local business networks were active in creating social value on a municipal or regional scale as members of these networks. Thus, the interviews show that the social value creation of these entrepreneurs is driven by some form of social embeddedness but not necessarily by local embeddedness.

Second, several entrepreneurs explained that they largely had contact with neighbours who were similar to themselves in terms of, for instance, life-phase, occupation, income and education. In other words, the local connection of several of the participants is limited to other locals with whom they share some commonalities. Moreover, some interviewees

who reside and work in neighbourhoods with high levels of social cohesion did not feel connected to other local residents, occasionally even feeling like outsiders. The social worker for the 'Bloemenbuurt-Oost' neighbourhood also signalled this feeling in his daily work. One strongly connected group of residents is present in this neighbourhood, which explains why the entire area has a high score on local social cohesion. However, not all residents in the neighbourhood have access or want to be part of this particular group, making them feel like outsiders.

Thus, close socio-spatial relationships, such as high levels of local social cohesion, can be a strengthening, but not an automatic, driver of local social value creation because in some cases, these strong social links are limited to one specific group. Furthermore, a form of 'selective contact' appears to occur because the entrepreneurs deliberately choose to connect with people with whom they "feel at home".

6.4.3 Social and emotional drivers of local social value creation

Threefold effect of local social networks

The propensity of the interviewees to create local social value was found both driven and strengthened by their local social networks. Several interviewees were stimulated by local network contacts, such as their neighbours, to become active in local social value creation, which can be viewed as a 'direct effect' of local social networks. For example, an entrepreneur who owns a communication firm had become a voluntary editor of a local online news platform because she was asked by a neighbour. She explained that as a volunteer, she could put her professional skills to good use and help the platform become more business-like. Therefore, although the entrepreneurs themselves were mostly not the initiators of organizing activities in their neighbourhoods, once they were asked by neighbours to participate, they were happy to do so.

In addition to the direct effect of the entrepreneurs' local social networks, the indirect effect, via local embeddedness, was found. Some participants said they felt that they were part of the "*local social community*" through their presence in the neighbourhood and because they knew many local people. As one entrepreneur explained, *"As an entrepreneur, I feel connected to the local neighbourhood. (...) And I therefore want to do my bit".* For these participants, having local network contacts led them to become locally embedded, which enhances their willingness to create local social value.

Furthermore, a moderating effect of local social networks on the personality, organizational and social contextual drivers has been found in the interviews. For example, serving a local market area is an important firm characteristic that drives local social value creation. Entre-

preneurs who are dependent upon local customers stated that they felt more responsibility toward "*giving back*" than did those without a local market area focus. For these entrepreneurs, local customers are important firm stakeholders. Thus, organizational characteristics of neighbourhood-based firms were strengthened by the entrepreneurs' social links to the local environment in driving local social value creation. This effect was for instance apparent in the 'Utrechtseweg' area. From the expert interview with the neighbourhood's social worker, it transpired that most firms were located in that area because of the high quality of the local surroundings (green neighbourhood with large and expensive houses, which are often transformed to office buildings) and the accessibility to the neighbourhood by car and public transport. Many of these firms, however, had only a small number of local customers, limited local contact and, consequently, were not involved in local social value creation. This situation was different for the firms with a local market focus, of which two participated in this study. Both of these entrepreneurs stated that they wanted to keep their local environment clear and safe, not only because they had clients coming to their business locations but also because they felt connected to their neighbourhood through their local market focus.

A second example of the moderating effect of local social networks can be found in the fact that multiple participants stated that they felt a moral obligation as entrepreneurs to contribute beyond the economic dimension. They did so, for instance, by buying products and services from other local businesses as a means of stimulating the local economy. One entrepreneur mentioned that he "*knows how hard it can be for these businesses to stay in business and that he is happy to contribute to their survival if possible*". This moral obligation shows similarities with the 'passion for the cause' found by Omorede (2014) because it originates from personality characteristics that are strengthened (i.e., moderated) by the entrepreneurs' commitment toward their local community (Kilkenny, Nalbarte & Besser 1999).

Power of an emotional connection

Interestingly, the effect of local embeddedness on local social value creation was also mentioned by some participants, who stated that they had few local network contacts. Although their local social contacts were limited in number, they nevertheless felt connected to their local environment. In other words, the presumed effect of local social networks leading to local embeddedness and consequently to local social value creation does not hold for these entrepreneurs. Furthermore, this feeling of local emotional attachment was expressed both by entrepreneurs who were local residents and by entrepreneurs who resided elsewhere. This latter group expressed the wish to "*be a good neighbour*". In the words of one entrepreneur, *"You are part of your neighbourhood, so you also have to participate in that neighbourhood, of course."* Others explained that they viewed their

neighbourhood as "*their home*" and "*as a place with which they felt emotionally connected*." This finding may be related to the previously discussed notion of 'placial embeddedness' (Korsgaard, Ferguson & Gaddefors 2015). These entrepreneurs attach emotional meaning to their neighbourhood, even without having many local contacts. This emotional connection to the local environment reinforces their personal beliefs that it is important to 'do good' and be active in creating social value. Thus, for these entrepreneurs, their personal characteristics, such as their moral judgment or empathy, influence their sense of local embeddedness and, consequently, their local social value creation practices.

6.4.4 Neighbourhood-level differences

As explained in the methodology section, the research design of this study consisted of five neighbourhoods that were selected based on the differences in their social cohesion and collective efficacy scores to explore the effects of the local social context on local social value creation by neighbourhood-based entrepreneurs. When considering the outcomes of the qualitative research, no clear-cut conclusions can be drawn concerning the effect of either collective efficacy or social cohesion. Neither of the two types of neighbourhood (low or high levels of social cohesion or collective efficacy) showed differential social value creation by the entrepreneurs interviewed. However, the local social context likely had an influence through its effect on local contact and local interaction. The 'Wiekslag' area provides an illustrative example of this potential influence. As explained by the social worker active in this area, this neighbourhood has very low levels of social cohesion and collective efficacy due to the presence of a number of different cultural groups in the neighbourhood and the low socio-economic status of many residents. Groups with different cultural backgrounds reside in this area. These groups often have strong internal social links, but they are not inter-connected. This image was also confirmed by the entrepreneurs residing in this area who were interviewed. These entrepreneurs stated that they find it difficult to contact local people. Furthermore, many people residing in this area struggle with making ends meet. According to the area's social worker, this challenge leaves little room for these people either to be active in local social value creation or to afford some of the services or products offered by neighbourhood-based entrepreneurs. In the words of the social worker, "*These residents cannot afford to visit a beauty salon or get a massage*." Entrepreneurs located in this neighbourhood are therefore often focused on the non-local market, which also limits their connection to the neighbourhood.

A second example is the low collective efficacy score for 'de Muntel' area. The local social cohesion is quite high, but this is mainly due to the presence of two separate groups, based on a division in the neighbourhood between an area with social housing and an area with privately owned houses. It transpired from the expert interview that both groups have strong internal networks, which leads to the high overall social cohesion score. However,

the score on collective efficacy is low because the two groups neither cooperate nor focus on the neighbourhood as a whole. Activities are organized on a personal basis and are only accessible to persons belonging to a certain group. For instance, one of the interviewed entrepreneurs explained he often organizes activities with other local entrepreneurs who also work in the creative sector. He therefore spoke about "*my kind of entrepreneurs*", meaning that these entrepreneurs met through commonalities in their business activities and not through them having a common business location.

In some other cases, the participants mentioned that they felt there was "*too much*" local social cohesion and efficacy among groups in their neighbourhood, making them feel like 'outsiders' in their own neighbourhoods because they were not part of these social groups. This high local cohesion, in turn, made them less inclined to become involved in the creation of local social value.

Thus, in each of the case study neighbourhoods, different effects of the local social context are found on the local social value creation of entrepreneurs located there. No commonalities are found concerning the effects of either high or low levels of local social cohesion or local collective efficacy.

6.4.5 Synthesis of the drivers of local social value creation

Based on the previously discussed findings, the model presented at the end of the theoretical framework should be revised (Figure 6.3). Of the expected direct effect of each of the four types of behavioural drivers, a link between personality characteristics, organizational characteristics and the social context, i.e., local social networks, has been found. However, direct effects of the other contextual characteristics, the economic and institutional context, or an effect of characteristics of the social issue have not surfaced from the interviews.

Furthermore, the moderating effect of local social networks on the personality, organizational and contextual characteristics has been found in the interviews. Although it proved difficult to disentangle these different effects from one another, having local social network contacts clearly influenced the stance and actions of the entrepreneurs with respect to local social value creation. How local stakeholders are important for firms with a local market focus, thereby driving their local social value creation, is perhaps the clearest example of the moderating effect of local social networks, in this case on the organizational characteristics of the firm. Other links are somewhat more difficult to unravel precisely; therefore, both a direct effect of the local social networks and the moderating effects are pictured in Figure 6.3. Local embeddedness was found strengthened for some entrepreneurs by them having many local social network contacts; therefore, the arrow representing this relationship remains present in the model (Figure 6.3).

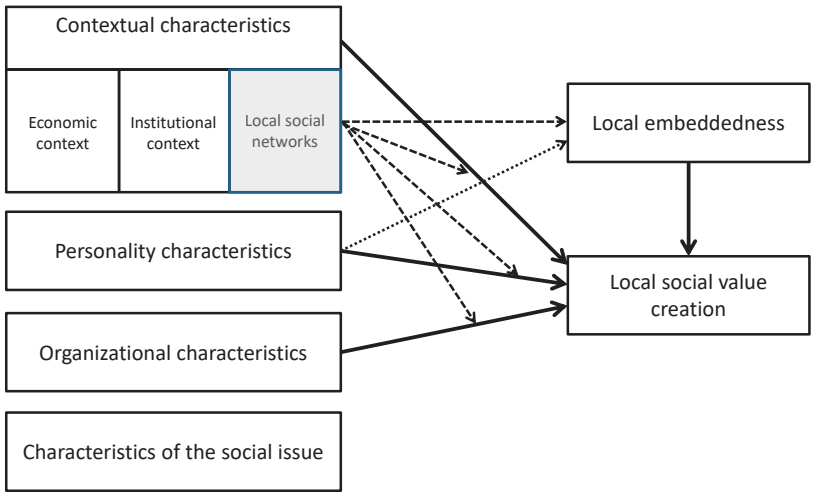


Figure 6.3: The drivers of local social value creation for neighbourhood-based entrepreneurs.

However, local embeddedness as the emotional connection some entrepreneurs experience concerning their local environment was also found to drive their local social value creation, which is a new and unexpected link depicted in Figure 6.3 as a dashed arrow moving from personality characteristics via local embeddedness to local social value creation. Thus, the revised model portrays the drivers of local social value creation found for the participants of this study.

6.5 CONCLUSION AND DISCUSSION

Residential neighbourhoods are increasingly becoming places for both living and working (Risselada & Folmer 2013). For neighbourhood-based entrepreneurs, the local context may be an important, if not the most important, business environment, making them likely to interact with other firms, entrepreneurs and local residents on a daily basis. These local network contacts are thought to be an important reason that entrepreneurs located in residential neighbourhoods are active in creating local social value. This chapter examined the following questions: *To what extent are neighbourhood-based entrepreneurs involved in local social value creation, which types of characteristics drive their behaviour and what is the role of their (local) social networks therein, both as an indirect effect through local embeddedness and as a moderating effect on the relationship between the different drivers and local social value creation?* This chapter contributes to three dimensions. First, this chapter explores social value creation by often small-sized commercial and neighbourhood-based entrepreneurs, thereby connecting to the debate on the social dimension of entrepreneurship (Boluk & Mottiar 2014; Lumpkin et al., 2013; Maïr & Martí 2006). This chapter

shows that neighbourhood-based entrepreneurs have a role to play in local social value creation, albeit often only modest. To give a complete picture of all actors active in creating social value, these types of entrepreneur should therefore be incorporated, something which many social entrepreneurship studies often neglect or refuse because social value creation is not purposeful and explicitly anchored in the firm's business model (Zahra et al., 2009). Second, this paper offers an extension of previous research on the drivers of social responsibility by small-sized businesses by empirically exploring the influence of local social networks (Aragón, Narvaiza & Altuna 2016; Omorede 2014). In addition to a direct effect, these networks are thought to have a moderating effect on the relationship between the four types of behavioural drivers and local social value creation. Additionally, an indirect effect through local embeddedness is also studied in this chapter. Finally, this chapter offers interesting empirical insights into the local social value creation of an under-studied group of entrepreneurs (Reuschke et al., 2017; Reuschke & Houston 2016), which is the third added value of this chapter.

Based on 18 interviews with neighbourhood-based entrepreneurs in the Dutch cities of Amersfoort and 's-Hertogenbosch, two groups of entrepreneurs can be distinguished: a group that is not active or interested in creating social value in any way and a group that does create local social value. For this latter group, different types of characteristics drive their social value creation, directly, indirectly or in a moderating relationship.

The qualitative analyses suggest that the personality of the entrepreneur, such as beliefs, empathy and moral judgment, and organizational characteristics, and primarily having a local market orientation are the primary direct drivers of local social value creation. These findings are consistent with the findings of previous work (Campin, Barraket & Luke 2013, Kilkenny, Nalbarte & Besser 1999; Schutjens & Steenbeek 2010). Interestingly, there was no mention of the institutional or economic contextual characteristics and the characteristics of the social issue as drivers of local social value creation (Lepoutre & Heene 2006). The reason for the absence of these drivers may be that Lepoutre and Heene (2006) studied small-business social responsibility, which relates specific firm strategies to complying with the needs and wishes of firm stakeholders and improving the firm's image. This chapter focuses less on strategic behaviour and more on how the entrepreneurs feel connected to their local environment as an entrepreneur, local resident or both. Additionally, because the interview setup openly explored the behavioural drivers, the interviewees might simply not have thought of the institutional or issue characteristics as driving their behaviour. Therefore, it would be going too far to state that these drivers play no role whatsoever. However, because they were not mentioned by the participants of this study, it can be assumed that these drivers are of less significant importance than the personality, organizational and social network characteristics.

Furthermore, this chapter shows that the entrepreneurial local social networks have a direct effect, an indirect effect and a moderating effect on local value creation. These findings demonstrate that the previous work on behavioural drivers of local social value creation has been incomplete with respect to the role of (local) social networks. This study's empirical analyses provide reasons to further explore the effects and influence of the social context in which firms are active in relation to their social value creation or social responsibility, a point also argued by Omorede (2014), Aragón, Narvaiza and Altuna (2016) and Kummitha (2017).

However, for entrepreneurs who are active in creating local social value, having local social networks is an important, but not the most essential, driver of their social value creation behaviour. Local embeddedness plays an important role in driving the local social value creation of these entrepreneurs, but this local embeddedness is not necessarily the result of their local social networks. Therefore, local embeddedness in its own right, without being fostered by local social networks, can lead to local social value creation. This phenomenon is an interesting addition to the embeddedness literature, which views social networks as the mechanism through which persons become embedded. This chapter demonstrates that local embeddedness can also be the result of an emotional attachment to a certain spatial context without a social network playing a role.

Limitations and future research

The main limitation of this study is the high level of non-response in the empirical research. Although each potential participant was approached multiple times and via different routes, 18 in-depth interviews were ultimately conducted. This number obviously limits the representativeness of this study, which therefore should be primarily viewed as an explorative study.

Furthermore, as is always true in the analysis of qualitative research, it is important to be aware of socially desirable answers given by the participants on the one hand and the researcher's own background and positionality in conducting the study and writing the findings on the other hand. However, the qualitative research design of the in-depth interviewing fits this chapter's research questions very well and has led to extensive and rich data on this subject.

Finally, as explained in the findings section, the definition of 'local' in local social value creation differed across the interview participants. More-strictly defined methods to demarcate the local environment may be used in future research to ensure similarity between the definitions used.

The group of neighbourhood-based entrepreneurs on which this chapter focuses is relatively unknown in terms of their relationship to the local environment and their potential for social value creation (Reuschke et al., 2017; Reuschke & Houston 2016). As this chapter shows, these entrepreneurs could be important sources of social value, which might hold true particularly for home-based entrepreneurs, who presumably have a 'double role' as both residents and entrepreneurs in the neighbourhood environment. Therefore, additional and more comparative research is necessary on the large and diverse group of neighbourhood-based entrepreneurs, whether home-based or residing elsewhere, in relation to their propensity for social value creation. Future research should include large-scale comparisons between entrepreneurs with and without a 'double role' in the neighbourhood while controlling for sectorial differences and firms with or without local market orientations. However, qualitative methods would nevertheless be preferred over quantitative methods because the complex and multi-interpretable notions of social value creation and social embeddedness are best studied by intensive and in-depth 'conversations' with participants.

One of the practical implications of this chapter is that a rise in the number of entrepreneurs located in residential neighbourhoods will not automatically lead to an increase in initiatives toward local social value creation. For these entrepreneurs to contribute to their local environment, they need to be embedded, for instance through their personal and business-related local networks. For policymakers, this process of local embedding can be facilitated via several approaches, such as through the establishment and promotion of local (business) networks, because being located in a neighbourhood does not ensure interaction with other local firms or residents. In addition, entrepreneurs should be made aware of the potential benefits of interacting with other firms or joining business networks, which they nevertheless often consider costly or unnecessary. Additionally, local embedding can be enhanced by more-flexible legislation concerning the business activities allowed in residential neighbourhoods and the growth of these firms. Because the process of local embedding takes time, it would be preferable to offer entrepreneurs the possibility to remain and grow at their original business location in the residential neighbourhood, which is now occasionally in conflict with local legislation or zoning procedures. For the presence of entrepreneurs to lead to sustainable and liveable residential neighbourhoods, as suggested by Jacobs (1961), these entrepreneurs need to be or feel connected to their local environment for them to actively create local social value. Only then may their full potential as actors in local social value creation be achieved.

APPENDIX

Appendix 6A.1: Topic list used in the interviews

Topic	Explanation
Local environment	Self-reported demarcation of the entrepreneur's local environment (with use of the map of the neighbourhood and surrounding areas where the firm is located).
Characteristics of the entrepreneur	Personal background (age, education, prior experience with entrepreneurship, etc.)
	Length of residency in the neighbourhood (*if applicable*)
	Reasons for starting the firm
Characteristics of the firm	Firm sector and specific activities
	Firm age
	Firm location = home-based: reasons for choosing business location, pros and cons of current location (*if applicable*) Firm location = external business location (non-home-based): reasons for choosing business location, pro's and con's (*if applicable*)
	Current business location: length of time located there and contentment with the location
Local social value creation (open)	Self-reported involvement with the local environment
	Examples of specific activities for local social value creation
Reasons for behaviour	Self-reported reasons for local social value creation (*if applicable)* Self-reported reasons for not being active in local social value creation (*if applicable)*
Social value creation	Corporate giving or corporate philanthropy
(based on Santana, 2015)	Volunteerism by business owners and firm employees
	Sponsorships or practices of social practice in return for advertising
	Cause-related forms of marketing
	Donation of equipment
	Civic-society partnerships as a response to an 'institutional void'
	Public-private partnerships
	Sponsoring of foundations by a firm
Reasons for behaviour	Self-reported reasons for local social value creation (*if applicable)* Self-reported reasons for not being active in local social value creation (*if applicable)*
Local embeddedness (private life)	Contact with neighbours and explanation of what this contact entails
	Help and support from the neighbourhood; residents and other entrepreneurs
	Use of local amenities; reasons for doing/not doing so
Local embeddedness (business life)	Importance of local context as source of clients/partners/suppliers, etc.

Appendix 6A.1: Topic list used in the interviews (continued)

Topic	Explanation
	Contact with neighbouring firms
	Cooperation with local firms
	Cooperation with non-local firms
	Use of local amenities; reasons for doing/not doing so

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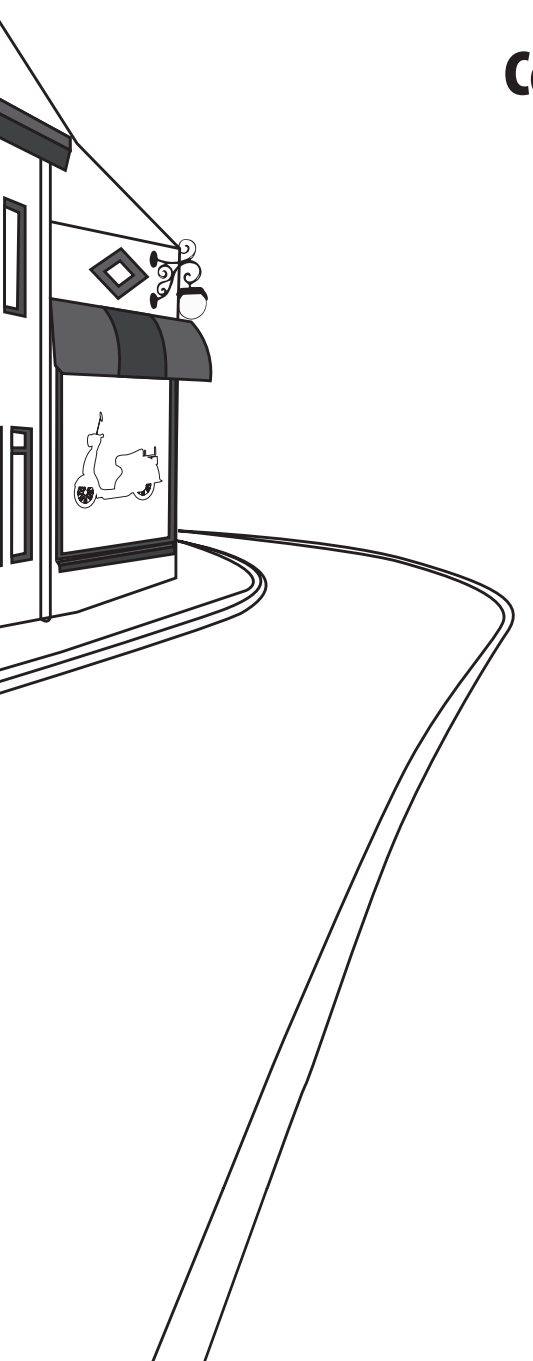
Chapter 7

Conclusions and discussion



This thesis has focused on the question of what the presence of entrepreneurs in residential neighbourhoods in the Netherlands currently means for both their firms as well as their local environments, using entrepreneurial social networks, both locally and beyond, as a nexus in this exploration. With the rise of the number of businesses in residential environments in many Western countries such as the Netherlands, the neighbourhood economy is again gaining importance as a production and working environment within the urban landscape. In addition, this rise of firms and entrepreneurs in formerly almost exclusively residential environments is likely to continue, as work in many modern-day economic sectors is led by different locational factors than the ones known from traditional economic and economic geography theories (Folmer & Kloosterman 2017).

This thesis has examined the social and local embeddedness of neighbourhood-based entrepreneurs together with the effects of their social networks and changes therein on both firm performance and local social value creation. This study has demonstrated that entrepreneurs continue to build and rely on their social networks over time. These networks, however, are generally not locally focused, which means that local embeddedness is found to play a less important role than expected. Furthermore, this thesis showed that the entrepreneurial networks are quite turbulent over time, with most individual network contacts exiting or entering the network. In the following sections, this thesis' main findings are discussed, following the three sub questions and the main research question presented in the introductory chapter. Next, the policy implications of this study as well as the main limitations and avenues for future research are discussed.

7.1 A COMPLEX STORY OF NETWORK CHANGE

In chapters two and three, exploring and understanding entrepreneurial network size, composition and change in size and composition were the main aims. As such, chapters two and three dealt with the first sub question, which asks

To what extent do the networks of entrepreneurs located in residential neighbourhoods change over time, and how do these changes relate to the characteristics of the entrepreneur, the firm and the existing social network?

Chapter two was concerned with inter-firm cooperation networks. First, the findings discussed in that chapter suggest that cooperation, whether local or non-local, is not common among entrepreneurs located in Dutch residential neighbourhoods. Moreover, their local cooperation has not increased over time in terms of the number of cooperation contacts mentioned. These findings are in contrast with the literature expectations discussed in both

the introductory chapter and chapter two. It was argued that the local environment would be a likely source of inter-firm cooperation contacts for these entrepreneurs and that this local focus would become stronger over time, which would be visible in an increase in the number of inter-firm cooperation contacts in the 2008-2014 period. This argument was based on the fact that the entrepreneurs both work and reside in the same neighbourhood context, which would lead to increased local embeddedness over time (Andersson & Larsson 2016). Other arguments were that small-sized firms generally have localized networks (Huggins & Johnston 2010) and that the rise in the number of neighbourhood-based economic activities would offer a greater potential supply of local network contacts (Folmer & Risselada 2013).

Nevertheless, the expected strong local cooperation links of the neighbourhood-based entrepreneurs were not found. These findings can be interpreted in different ways. Maybe these entrepreneurs do not require inter-firm cooperation partners, as they already receive enough assistance and support from their other network contacts. Alternatively, the neighbourhood-based entrepreneurs may be willing to cooperate with other firms or entrepreneurs, but they are unable to find suitable cooperation partners, either within or outside their local environment. These types of network relations may be preferred over more formal cooperation agreements.

Second, the chapter has also demonstrated that inter-firm cooperation in general, whether local or non-local, is based on 'temporary coalitions', as entrepreneurs replace approximately 90% of these contacts over a period of 6 years. Thus, in the case that neighbourhood-based entrepreneurs do enter into inter-firm cooperation relations, those arrangements are only short-lived. As to the chapter's remaining findings, changes in the number of local inter-firm cooperation contacts were found to relate to firm age, with younger firms in particular experiencing a decrease in local cooperation contacts over time, and to market orientation, with local cooperation becoming relatively more important for firms active in sectors with a local orientation.

Chapter three focused on network contacts used for business purposes and those used for private purposes, as entrepreneurs are likely to also use their private networks for firm-related purposes (Devins et al., 2005). In the chapter, the rich data from the two waves of the SSNE were used to provide a detailed description of the size, composition and the dynamics in the networks of the entrepreneurs. No significant changes in network size over time were found, with the average network size remaining quite similar between 2008 and 2014. This means that there is less network size change than was expected based on the literature (Butler & Hansen 1991; Garnsey 1998). However, some general changes were found in relation to network size, as entrepreneurial networks overall seemed to converge,

with larger initial networks showing a decrease in the number of network contacts and vice versa for initially small-sized networks. Both findings, limited change in the average network size and a convergence of network size in general, suggest that an 'optimal' network size exists, where there is a balance between the costs and benefits of enlarging or reducing one's social network.

In this third chapter, three different dimensions of network composition were also considered. These dimensions were the following: the number of family contacts, local contacts and role overlap. First, the number of family contacts as part of the entrepreneurial network did not show significant changes over time, contrary to the expectations and the prevailing notions from the literature on strong ties (Davidsson & Honig 2003; Greve & Salaff 2003; Martinez & Aldrich 2011). Second, an increase was found in the number of local contacts, indicating that, over time, the local environment has become a more important source of network contacts for business and private purposes. This aligns with the assumptions regarding the neighbourhood-based entrepreneurs becoming locally embedded over time by drawing on their local environment for network contacts. However, the average number of local network contacts still remained quite small, with an average of around one local network contact per entrepreneur. Third, role overlap in the entrepreneurial networks was found to exist, but there were no significant changes on this dimension over time. As such, the findings on role overlap form an addition to the scarce empirical work on this topic, demonstrating that role overlap occurs and that entrepreneurs with a small network were particularly found to make use of this strategy, presumably as a means of compensating for their smaller network size.

In summary, the first two empirical chapters of this thesis tell a complex story of network change. The lack of inter-firm cooperation contacts found in chapter two may to some extent be explained by the fact that the entrepreneurs more strongly rely on network contacts for either business purposes, private purposes or both (chapter three). However, the change in the number of these contacts used for business and private purposes was found to be only limited, as demonstrated in chapter three. As such, what chapters two and three have provided is a detailed assessment of network dynamics. By considering both changes in network size and network composition as well as inter-firm cooperation contacts, both chapters have unveiled that in-depth explorations of elements in network dynamics allow for different patterns to be exposed, such as the 'temporary coalitions' within the inter-firm cooperation networks of the entrepreneurs or the compositional changes regarding the business and private related network contacts. Without such in-depth analyses of entrepreneurial networks, these types of 'undercurrents' in the entrepreneurial network dynamics would have been hard to uncover. This, therefore, is a clear added value to the literature of analysing entrepreneurial networks from a dynamic perspective.

7.2 NETWORK DYNAMICS AND FIRM PERFORMANCE: A RECIPROCAL RELATIONSHIP

The notion that entrepreneurial networks and changes therein are important for firm performance is explored in chapters four and five, following the second sub question: *How do changes in both the entrepreneurial social networks and firm performance influence each other?*

The findings presented in chapter four suggest that a reciprocal relationship between changes in network size (defined in this chapter as networks contacts used for business-purposes and inter-firm cooperation) and firm performance exists. This means that entrepreneurial networks and changes therein matter for changes in firm performance, with network enlargement presumably acting as a possible counterweight for the firms' limited internal resource base, which is in line with the assumptions presented in chapter four (Hoang & Yi 2015; Stam, Arzlanian & Elfring 2014). Consequently, following the social capital perspective discussed in chapter one, entrepreneurial network change may act as a source of resilience for firms, especially in times of economic downturn, thereby increasing their chances for survival and growth. In turn, chapter four's findings have indicated that network change itself can also be instigated by changes in the firm's performance (Gherhes et al., 2016). As such, this chapter has demonstrated that the relationship between changes in both network size and firm performance is a reciprocal one and that future work on this subject should look beyond the unidirectional assumption that network change drives firm performance change.

In exploring reciprocity in the relationship between network change and firm performance change, measures of entrepreneurial learning capabilities were taken into account because such competences stimulate the use and application of external resources for firm-related purposes (Qian & Acs 2013). The addition of the entrepreneurs' learning capabilities in the analyses has enriched our understanding of the reciprocal network change – performance change relationship. Learning capabilities, measured through human capital proxies, were found to act as moderating and strengthening forces in this relationship. This suggests that, for entrepreneurs to fully benefit from their social network and corresponding social capital with regard to their firms' performance, they need to invest in business-related education and knowledge generation. It seems that simply having access to social capital is not enough to also take advantage of the corresponding resources; it is also a matter of knowing how to use these resources for the firm's benefit.

Chapter five has focused on all dimensions of the entrepreneurial networks by examining the individual contacts used for business purposes, private purposes and inter-firm

cooperation contacts. With the use of the detailed data from both waves of the SSNE, this chapter was able to go beyond exploring network dynamics in terms of changes in average network size over time. Instead, changes on the level of individual network contacts have been uncovered. By doing so, chapter five has explored two important notions in the entrepreneurial network literature: the effects of network stability and network change on firm performance. In the literature, both stability and change of network contacts are thought to have positive as well as negative performance effects (Arregle et al., 2015; Granovetter 1973). This chapter has built on these contrasting arguments by demonstrating which network members remained in the entrepreneurial network over time (i.e., network stability) and which contacts were newly added (i.e., network change) and relating these findings to firm performance.

On average, the networks of the neighbourhood-based entrepreneurs consisted of five contacts for both years of the SSNE data (SSNE1 in 2008 and SSNE2 in 2014). However, the in-depth explorations of network changes have demonstrated that these networks were highly turbulent 'beneath the surface', with approximately over two thirds of the network contacts in six years' time. This is quite a remarkable outcome, as the analyses of net network change presented in the previous chapters suggested that overall change in the entrepreneurial network was limited. The uncovering of these high levels of turbulence is an important added value of exploring network change at the individual network level compared to studying average or net network change. However, although the entrepreneurial networks are found to be quite dynamic, chapter five also showed that this turbulence had no effect on firm performance. As such, the analyses on the effects of either network change or network stability on firm performance have provided no clear-cut conclusions regarding which of the two is most beneficial.

In addition to changes in network size in general, three relational network dimensions (tie strength, tie locality and multiplexity or role overlap) have also been explored with regard to network change and stability in relation to firm performance. Although all three dimensions were expected to lead to increased firm performance over time, there was no evidence found in chapter five to support these assumptions. These outcomes deserve further consideration. First, although tie strength and changes therein were found not to matter for firm performance, the findings do suggest that the neighbourhood-based entrepreneurs were not 'locked-in' their social relationships, as they seemingly have added new contacts and retained existing ones. If anything, the neighbourhood-based entrepreneurs again appear to make use of 'temporary coalitions', similar to the outcome in chapter two, but the findings from chapter five suggest that they combine such coalitions with enduring, trust-based relationships. Second, with respect to 'tie locality', while the net number of local network contacts may have risen over time (chapter three), this increase

had not led to positive performance outcomes, as demonstrated in chapter five. Third, the dimension of network multiplexity, which was defined as role overlap in chapter three, was found to exist, but this had no effect on firm performance.

In sum, the analyses presented in chapters four and five regarding the relationship between entrepreneurial network change and firm performance differ. This may be attributed to the analytical differences between both chapters. Chapter four explored the net changes in the entrepreneurial networks, whereas chapter five examined changes on the individual network contacts level. When combining the findings of both chapters, it becomes apparent that, in order to increase their firms' performance, entrepreneurs do require network changes in terms of an enlargement of their network size (chapter four). However, it seems irrelevant who constitutes the network (chapter five). Who the network contacts are and what the previous relation between the entrepreneur and the individual network contacts entailed seems to be subordinate to simply increasing the network. In other words, for the entrepreneurs studied here, it is less about the individual network contacts and their personal characteristics and more about the net increase of an entrepreneur's network in general. Network enlargement leads to access to a bigger base of network resources, which, in turn, can counterbalance the firm's own small internal resource base and corresponding 'liability of smallness' (Brüderl & Schussler 1990; Cooke 2007; Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán 2017).

7.3 LOCAL SOCIAL NETWORKS AS DRIVERS OF LOCAL SOCIAL VALUE CREATION

The final empirical chapter in this thesis is based on qualitative research focused on the local social value creation by 18 entrepreneurs in the Dutch cities of Amersfoort and 's-Hertogenbosch. The interviews with these entrepreneurs are used to answer the following question (sub question three):

To what extent are entrepreneurs located in residential neighbourhoods involved in local social value creation, and what is the role of their local social networks therein?

The examination of the local social value creation by neighbourhood-based entrepreneurs is based on the assumption that these entrepreneurs feel connected to their local environment and therefore want to make a positive local contribution beyond the economic dimension. The analyses presented in chapter six suggest that neighbourhood-entrepreneurs have a role to play in local social value creation, although the extent of their social contribution varies. Mostly, the interview participants were active in small-scale, locally oriented forms

of local social value creation, such as improving local liveability, through social control and the improvement of the physical environment, the sponsoring of local activities, or the donation of free services or goods.

Apart from the actual actions of the entrepreneurs with regard to local social value creation, four main groups of behavioural drivers were explored in this respect, with the local social networks and local embeddedness of the entrepreneurs playing a prominent role (Jack & Anderson 2002; Korsgaard, Ferguson and Gaddefors 2015; Lepoutre & Heene 2006; Omorede 2014). The findings provide evidence for the presumed direct, indirect and moderating effects of the entrepreneurial local social networks. However, although chapter six has demonstrated the different effects of local social networks, they are not prerequisites for entrepreneurs to become involved in local social value creation. First and foremost, an entrepreneur needs to have an intrinsic personal motivation to contribute to local social value creation and 'do good'. Thus, the local social value creation of the neighbourhood-based entrepreneurs was found to be primarily driven by their personal characteristics, with local social networks acting as a strengthening (i.e., moderating) factor. This moderating effect of the local social networks was particularly apparent for firms with a local market focus and for whom local customers are important stakeholders. The involvement in creating local social value of these interview participants benefited their image amongst local clientele and served as firm promotion at the same time. Finally, local embeddedness was found to drive local social value creation; however, this local embeddedness was found not to exclusively originate from the entrepreneurs' local social networks. In some cases, entrepreneurs felt emotionally connected to their neighbourhood environment, though they did not have a strong local social network. Therefore, local embeddedness in its own right, but triggered by personality characteristics, also drives local social value creation.

7.4 EMBEDDED ENTREPRENEURS: SOCIALLY, BUT NOT LOCALLY

This thesis has demonstrated that the social networks of entrepreneurs located in Dutch residential neighbourhoods are important for their firms' performance change and that their local social networks drives local social value creation. In this section, these findings are discussed further in order to provide an answer to the following main research question:

To what extent do the social network composition and social network change of entrepreneurs in residential neighbourhoods relate to their firms' performance and their activities regarding local social value creation?

Each chapter in this thesis has demonstrated that the entrepreneurs studied here, who reside in or close to the neighbourhoods in which their firms are located, are socially embedded. They do not operate in isolation but are connected to different types of network contacts, such as family, friends and, to a lesser extent, other firms. Moreover, this thesis has shown that, for these neighbourhood-based entrepreneurs, changes in their social networks positively influence changes in their firms' performance. More specifically, they benefit from network enlargement in terms of increased firm performance. Social network contacts are thus essential for these entrepreneurs, which is a finding that is in line with the contextualization and social capital perspectives introduced in chapter one (Stam, Arzlanian & Elfring 2014; Watson 2007; Westlund & Adam 2010). In addition to the effects of their social networks on firm performance, which is an economic outcome, the entrepreneurial social networks also have a social impact through the influence on local social value creation. The entrepreneurs' local social networks were found to play a supporting or mediating role as drivers of local social value creation.

Additionally, this thesis has revealed that the networks of the entrepreneurs in Dutch residential neighbourhoods are far from stable. These entrepreneurial networks show high levels of turbulence over time in terms of a large number of network contacts that disappear and/or are added to the entrepreneurial network. This turbulence would have remained masked if only net change over time were examined. The use of the rich and in-depth data from the two waves of the SSNE has uncovered these high levels of network turbulence. Therefore, this is one of the main added values of this research project, the finding that the entrepreneurial networks are highly turbulent. This means that the entrepreneurs studied here do not primarily rely on long-lasting and enduring network contacts; new contacts are brought into their networks, which might reduce the risk of the entrepreneur becoming locked into social relationships that could hinder the influx of new resources (Gedajlovic et al. 2013). However, when analysing the high levels of network turbulence, no association has been found between either the number of remaining or new network contacts and firm performance. Only net network size change is found to positively relate to firm performance change. This suggests that it is the enlargement of the entrepreneurial network that leads to improved firm performance, regardless of whether the network consists of primarily stable or new network contacts. Thus, neither network stability nor network change over time lead to improved firm performance for neighbourhood-based entrepreneurs in general. In seems that each individual entrepreneur changes his/her own network in line with his/her current and future firm needs, following the specific phase in their firm's life

course. Through the ability to change their networks over time, entrepreneurs can successfully use their network contacts on behalf of their firms' development. This outcome calls for additional research on the importance of network changes compared to network stability and the relationship with firm performance.

When turning to the source of the entrepreneurial network contacts, the analyses presented here suggest that Dutch neighbourhood-based entrepreneurs only have a small number of network contacts in the neighbourhoods where they themselves both work and reside. This suggests that the local embeddedness of these firms is limited, making them less locally embedded than was expected at the outset of this study. Interestingly, this was also found to hold for firms active in locally oriented sectors, such as retail, catering, personal services and private education (Sleutjes & Schutjens 2012). It was expected that firms in those sectors would have an inherent connection to their local business environment, which would also be apparent in their having many local social contacts. However, even for these locally oriented firms, the local environment does not serve as an important source of network contacts. Furthermore, although the number of local network contacts was found to significantly increase in the 2008-2014 period, the number of local contacts remained low, with an average of one local contact per respondent in both years. Moreover, the increase in local contacts had no significant effects on firm performance or firm performance change over time. This means that the assumption that these entrepreneurs, through their 'double role' in the neighbourhood as both an entrepreneur and a resident, would have many local contacts and consequently would increasingly become embedded in and committed to the local environment is not supported by the outcomes of this study.

Thus, although there has been a clear change of economic activity in Dutch residential neighbourhoods, with the number of entrepreneurs and firms located in residential neighbourhoods rising in the last ten years, this has not led to high levels of local interaction or local cooperation by the entrepreneurs located there. Although these entrepreneurs are socially embedded, their local connections remain limited. This suggests that the role of current-day neighbourhood-based entrepreneurs in their neighbourhood is different from that of the businesses that were present in neighbourhoods in the time of Jane Jacobs, between the 1950s and 1980s. Neighbourhood-based entrepreneurs currently seem to have limited need for local social network contacts and are consequently relatively unconnected to their local environment. As such, the notions from relational economic geography used in this study, among which local embeddedness and the importance of being located close to business-related contacts, are less relevant for the group of entrepreneurs located in Dutch residential neighbourhoods than was expected previously (see chapter one). As discussed in chapter two, this could be caused by the fact that neighbourhood-based entrepreneurs have no necessity or willingness to search for network contacts within their

local context. Alternatively, they might not be aware of the possibilities for inter-firm co-operation within their own local context. Whichever is the case, there is a need to critically rethink this type of entrepreneurial activity in relation to its spatial context and develop new concepts and theories within economic geography that are appropriate for this group. These new concepts will probably not be found by further exploring the importance of the local context as a source of network contacts for these entrepreneurs. Instead, some of this thesis' outcomes offer leads for future research with regard to neighbourhood-based entrepreneurship. These are discussed in the final section of this chapter.

7.5 POLICY IMPLICATIONS

The rising number of entrepreneurs in residential neighbourhoods in many Western countries such as the Netherlands has also led these entrepreneurs to become both stakeholders and actors in local policy making. However, as transpired from the expert interviews conducted as part of this study (chapter six), local authorities are struggling with targeting and reaching the group of neighbourhood-based entrepreneurs and firms in local policies. The interviewed experts explained that they are insufficiently acquainted with the needs and wishes of this group because entrepreneurs are so diverse in terms of their business activities and the different spatial scales on which they operate. This complicates drafting appropriate policy measures and instruments for this particular group. Therefore, this section attempts to translate the outcomes of this thesis into policy implications, which are of interest for governmental authorities such as city councils or neighbourhood development organizations.

When considering the social networks and firm performance relationship, this thesis has indeed demonstrated that there is no 'one size fits all' strategy for the neighbourhood-based entrepreneurs in terms of network stability or network change that could be promoted in policy. The findings do suggest that network change over time, in terms of network enlargement, is important for firm performance. By making use of 'temporary coalitions', entrepreneurs continuously renew and change their networks in answer to their firms' particular needs. However, the entrepreneurs studied here, in general, seem to be able to independently shape and change their social networks when they wish. Accordingly, this suggests that there is no need to design and implement policy measures aimed at increasing firm performance through stimulating interaction and collaboration between entrepreneurs and (potential) network contacts. Only in cases where there are barriers in the interaction between entrepreneurs and potential network contacts would policy measures make sense, as entrepreneurs would otherwise be likely to miss interaction and collaboration opportunities. Such policy measures could include assistance in the establish-

ment of local business organizations, if such policies are not yet in place, or by creating opportunities for firms to meet and interact.

Next, the thesis has demonstrated that the entrepreneurs studied here have a limited number of local network contacts, suggesting that they are quite unconnected to their local environment in terms of local embeddedness. This outcome can be related to the involvement of neighbourhood-based entrepreneurs in local social value creation. For the entrepreneurs interviewed in chapter six, their local social networks play a supportive, but not a decisive, role in whether an entrepreneur is active in local social value creation. Additionally, many of the interviewees stated that they would like to be active in some form of social value creation; however, they did not want to be the pioneers or leaders in such initiatives. Therefore, policy makers should be aware that the wish to create social value may be present among some neighbourhood-based entrepreneurs, although possibly not as instigators of initiatives and not necessarily focused on the local context. Accordingly, policy measures should target this group by informing them about and stimulating them to join already existing social value creation initiatives, both local and non-local, and by pointing out the potential benefits for them. By explaining the potential 'double bottom line' of combining economic and social value creation (Acs, Boardman & McNeely 2013), these entrepreneurs may become interested in social value creation. Moreover, entrepreneurs who feel embedded to their local environment, whether driven by their local social networks or by their own emotional attachment to the neighbourhood, are more likely to be active in local social value creation. Furthermore, for this group, policy measures can facilitate connecting them to other local actors or local initiatives with respect to local social value creation.

7.6 LIMITATIONS AND FUTURE RESEARCH

7.6.1 Reflecting on the study's limitations

This study on the interaction between entrepreneurs located in residential neighbourhoods and the local environment has offered new, empirically based insights into the way these entrepreneurs use and change their networks and into the extent to which they are connected to their local environment through their network contacts. However, this dissertation has a number of limitations, which may have influenced the findings and which call for additional research on the group of neighbourhood-based entrepreneurs. Additionally, some additional avenues for future research are discussed at the end of this section.

Selection bias may have influenced the findings in at least two ways. The first relates to the fact that by studying firms at two points of time, the data are biased towards successful

firms, as only firms that were still in business after five to six years (the period between 2008-2014) have been included in the analyses of network change and performance change. Checks on representativeness and data sorting have been conducted, which suggest that the 214 entrepreneurs that participated in both waves of the SSNE offer a representative sample. Nevertheless, it is not possible to compare the group of entrepreneurs that has 'dropped out' between the SSNE1 and SSNE2 and the group that participated with regard to changes in their social networks. It would therefore be interesting for future studies to try to make such comparisons.

A second potential source of selection bias also relates to the lack of a reference group. The participant selection in both waves of the SSNE was aimed at finding entrepreneurs whose firms were located in pre-selected neighbourhoods and who themselves also resided in or close to those neighbourhoods. Consequently, this precludes comparisons between the neighbourhood-based entrepreneurs and entrepreneurs who themselves reside elsewhere or whose firms are located elsewhere. As such, the data can only be generalized for the group of neighbourhood-based entrepreneurs and only holds for the Dutch context. Future research should therefore include the possibly of drawing comparisons between the group with the 'double role' and the group that resides elsewhere. Additionally, research on entrepreneurship in residential neighbourhoods in other countries may lead to different or additional insights into the local embeddedness of these entrepreneurs and their relations with the local context.

Moving on, the findings related to firm performance may have been influenced by the definitions used in this thesis. In all the analyses featuring firm performance, this variable has been defined as the level of firm sales (measured in Euros). However, other measures of firm performance exist, including the recently introduced forms of 'subjective' performance, which take into account the entrepreneurs' own interpretation and view of their firms' performance (Reijonen & Komppula 2007). A second definitional issue relates to the way 'an entrepreneur' is described in this study compared to definitions commonly used in the literature. Here, an entrepreneur is considered to be equal to the owner-manager of a firm. Some entrepreneurship scholars would find this definition too broad, as they follow the Schumpeterian interpretation of entrepreneurship, which focuses on innovativeness and risk taking (Van Stel, Wennekers & Scholman 2014; Zahra & Wright 2016). Many of the entrepreneurs in this study may not fit that image, as they are not focused on creating economic change or firm growth per se. This, however, does not make this group less relevant or interesting to study because these entrepreneurs still create economic value, and sometimes even social value, through their business activities (Welter et al. 2017). Finally, the delineation of neighbourhoods in the SSNE may not correspond to what the entrepreneurs themselves consider to be their local environment. In the SSNE, following

the setup of the SSND, neighbourhoods were based on the Dutch postal code system. However, other definitions could also be applied, such as ones that are not based on administrative demarcations but follow an individual's own interpretation.

The rich SSNE data used in the majority of this thesis' chapters have led to extensive and in-depth explorations of the entrepreneurial networks in relation to firm performance. With the use of different name-generating questions (see Appendix 1A.1), individual network contacts could be defined together with the purposes for which they were used. This has given a unique insight into the composition of entrepreneurial networks and changes therein over time. However, as each of the five name-generating questions had a limit to the number of network contacts that could be mentioned, this may have led to an underestimation of the total size of the entrepreneurial networks. This form of potential network truncation has already been discussed in the different chapters and was found to have no or little effect on the outcomes of the analyses. Another limitation regarding the SSNE questionnaires relates to the questions about the social contexts in which the social relationships emerged. Network contacts found and maintained digitally could not be included in the analyses, as data on the use and importance of network sites were only available from the second wave of the SSNE and consisted of four questions in total. Therefore, this thesis paid little attention to the importance of these 'digital' network contacts and the role they might play in providing access to a diverse range of resources. As the local environment turns out to be a less important source of network contacts than was originally expected, though the entrepreneurial network has a positive influence on firm performance, it might be worthwhile to explore the potential of digital networks for entrepreneurs located in residential neighbourhoods. Through network contacts accessed via digital channels, entrepreneurs may bring in new resources, benefiting firm development and market opportunities (Kuhn, Galloway and Collins-Williams 2016).

Another research limitation may be that the two waves of the SSNE were conducted during a time of worldwide economic downturn. As such, both waves offer a unique insight into the network development and firm performance of neighbourhood-based entrepreneurs during one of the most challenging economic times in the last decades. At the same time, this particular period is likely to have influenced this study's outcomes, especially when the relationship between social network change and firm performance is concerned, as many firms struggled in those years with maintaining their orders and sales or even staying in business. In particular, the effects and influence of the entrepreneurial social networks may have been over- or underestimated. Additional research on this group or a similar group of small-sized, neighbourhood-based entrepreneurs would lead to interesting comparisons regarding the role of entrepreneurial social networks during and after a period of worldwide economic downturn.

7.6.2 Additional avenues for future research

First and foremost, the high levels of turbulence and the 'temporary coalitions' that were found in several of the chapters would be interesting to explore further. The questions that arise include the following: why do some network contacts remain, whereas others disappear from the network, and to what extent are these changes purposeful? Additionally, it may be worthwhile to delve deeper into the effects of the 'temporary coalitions' that were found in this thesis and see whether small-sized neighbourhood businesses differ in this sense from businesses located in the more traditional business locations. Furthermore, a similar comparison could be made with regard to the importance of local and non-local networks for these two groups of businesses.

The explorative analyses on the local social value creation by neighbourhood-based entrepreneurs presented in chapter six offer several interesting leads for research on this topic. Additional research, both qualitative and quantitative, should be conducted in order to better understand the role neighbourhood-based entrepreneurship plays and could play in local social value creation. For instance, the role of the economic sector should be further explored in this respect, as the analyses in chapter six have demonstrated that entrepreneurs who focus on a local clientele have more incentive to become active in local social value creation in comparison to firms without this local market focus. Moreover, it would be interesting to draw comparisons between different groups who are present within a neighbourhood with regard to their local social value creation. For instance, a comparison in local social value creation by home-based firms and non-home-based is likely to render additional insights into the role of local embeddedness. Additionally, comparisons could be made between neighbourhood-based entrepreneurs and 'regular' residents, as the former group supposedly has a stronger incentive for such actions because of their 'double' role within the neighbourhood. Additionally, the effects of varying neighbourhood contexts in terms of local liveability scores also offers an interesting point of departure for future research.

Finally, there is a need to reconsider why entrepreneurs and firms choose to locate in residential neighbourhoods and what their presence means for the presumed positive effects of mixing living and working environments on local liveability (Jacobs 1961; Sayers 2010). Both topics have been indirectly discussed in this thesis but have only received limited attention. The locational motives of entrepreneurs currently may be fundamentally different from those in the 1950s to 1980s (Curran & Blackburn 1994). A better understanding of their motives for locating in a residential neighbourhood may also lead to more insights into the process of local embedding. Learning more about the way neighbourhood-based entrepreneurs become locally embedded and feel connected to their local environment

may shed more light on the relationship between entrepreneurial activities and residential neighbourhoods.

In conclusion, it has become apparent that entrepreneurship has returned to the neighbourhood. With the rise of the number of businesses in residential environments, the neighbourhood economy is again gaining importance as a production and working environment within the urban landscape. However, this study has shown that neighbourhood-based entrepreneurs only have small numbers of local network contacts and that these entrepreneurs play a modest role in local social value creation. This means that their local embeddedness remains quite limited, which is also partly reflected in their limited propensity towards local social value creation. Nevertheless, these entrepreneurs are socially embedded, as they are linked to the outside world through their social networks. In addition, because of their social relationships, these entrepreneurs are more than merely economic actors; they are also part of social structures on different spatial scales, making them social actors as well. This social dimension is becoming increasingly important in light of a retreating public government and will likely remain so in the coming decades (Kay, Roy and Donaldson 2016). Therefore, it is interesting to further explore the role of social embeddedness and changes therein over time in driving the willingness of entrepreneurs to intervene and contribute towards social value creation and social change. This means that additional research on the micro-level relations between entrepreneurs and their social and spatial environments remains as relevant and important as ever. In addition, notions from economic geography in general and relational economic geography in particular are ideally suited to be used as part of these future explorations.

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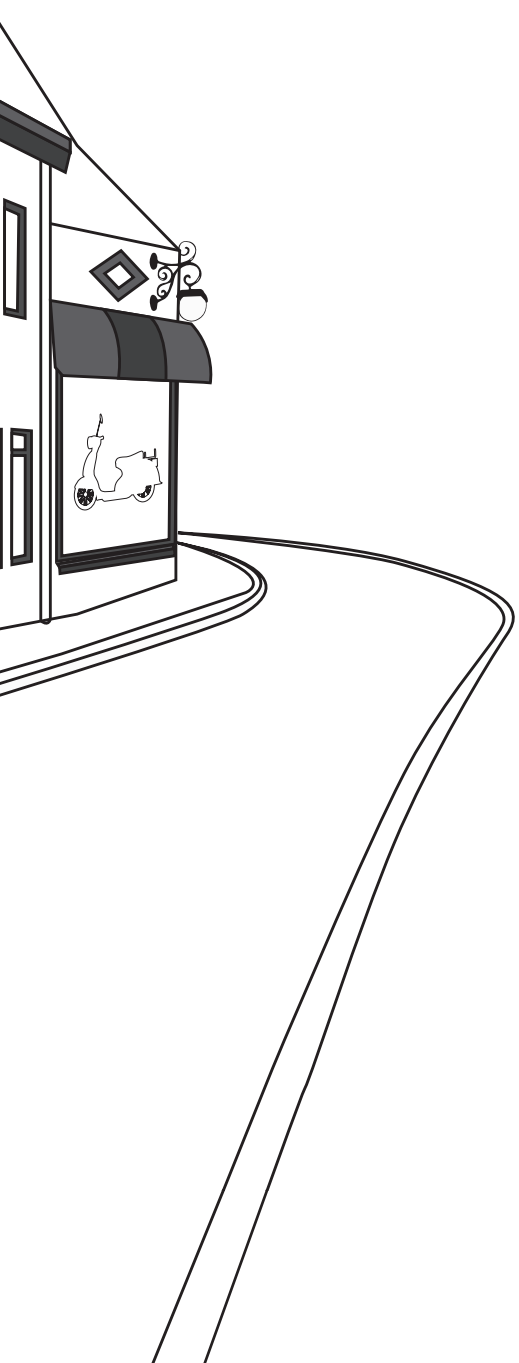

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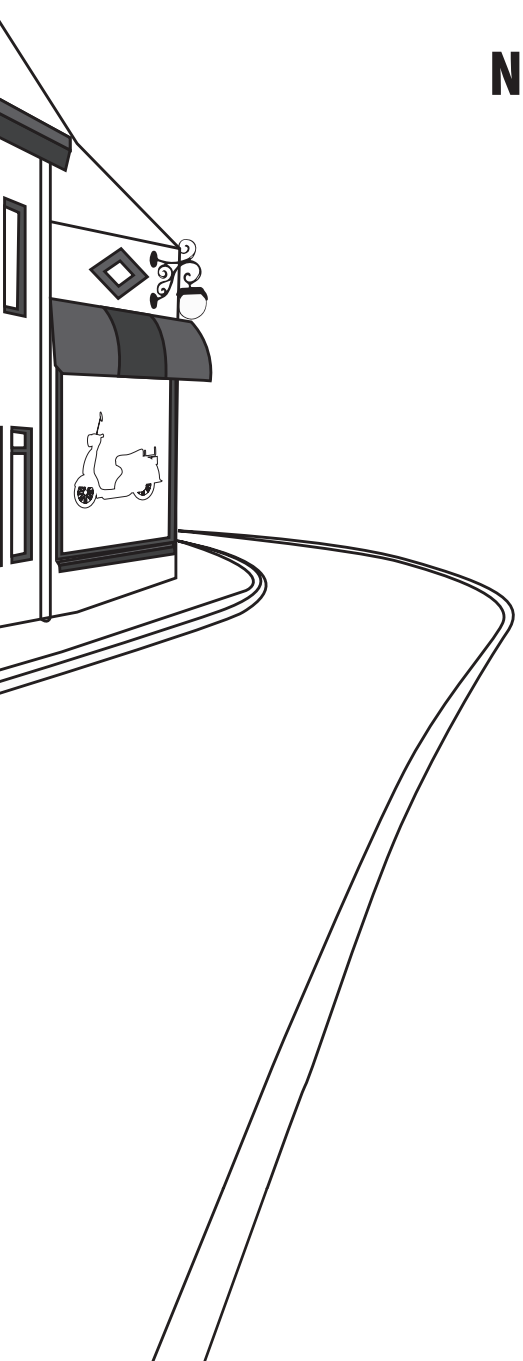


Nederlandse samenvatting

Inleiding

Dit proefschrift richt zich op ondernemers en bedrijven gevestigd in woonwijken in Nederland. In de afgelopen twee decennia is de woonwijk een steeds belangrijkere locatie geworden voor bedrijvigheid in het algemeen en vooral voor kleinschalige ondernemingen en bedrijven aan huis. Dit roept de vraag op in hoeverre deze bedrijven en ondernemers in woonwijken gebruik maken van en hoe ze omgaan met hun lokale omgeving. In dit proefschrift wordt de relatie onderzocht tussen de ruimtelijke context van de woonwijk en de ondernemers die daar gevestigd zijn aan hand van analyses van de (lokale) sociale netwerken van deze ondernemers en veranderingen daarin. De centrale vraag die in dit proefschrift wordt beantwoord luidt als volgt:

In hoeverre houden de samenstelling van en veranderingen in de sociale netwerken van ondernemers gevestigd in woonwijken verband met de prestaties van hun bedrijf enerzijds en hun activiteiten met betrekking tot lokale sociale waarde creatie anderzijds?

Deze centrale vraag is stapsgewijs behandeld in de verschillende hoofdstukken van dit proefschrift. Na de algemene introductie in hoofdstuk een, gaan hoofdstukken twee en drie in op verschillende onderdelen van netwerkverandering. In hoofdstuk vier en vijf wordt de relatie tussen netwerkverandering en veranderingen in bedrijfsprestaties en –succes onderzocht. Hoofdstuk zes, als laatste empirische hoofdstuk, kijkt naar de lokale sociaal-maatschappelijke bijdrage van ondernemers die gevestigd zijn in woonwijken. De conclusies van het proefschrift worden gepresenteerd in hoofdstuk zeven, samen met aanbevelingen voor beleid en toekomstig onderzoek.

Aanleiding voor dit onderzoek

Na decennia van functionalistische planningsregimes waarin de scheiding van verschillende functies centraal stond, verandert de woonwijk vandaag de dag in toenemende mate naar een plek waar niet alleen gewoond, maar ook gewerkt wordt (Folmer & Risselada 2013). Deze ontwikkeling wordt gevoed door een aantal ontwikkelingen. Verschillende technologische innovaties, vooral op het gebied van telecommunicatie en digitalisering, zorgen er voor dat ondernemers zich kunnen vestigen in en opereren vanuit andersoortige locaties dan traditionele bedrijventerreinen of kantoorgebouwen (Folmer & Kloosterman 2017; Van Ham et al., 2017). Steeds meer ondernemers kiezen voor vestiging van hun bedrijf in de eigen woonwijk, waarbij het grootste deel van deze groep een bedrijf aan huis heeft (Mason, Carter & Tagg 2011; Reuschke et al., 2015). Daarnaast wordt flexibiliteit in het uitvoeren van werk-gerelateerde taken en het combineren van werk en privé steeds belangrijker in de moderne samenleving. De opkomst van het aantal bedrijven in woonwijken, waaronder dus bedrijven aan huis, hangt hier ook sterk mee samen (Mason, Carter & Tagg 2011).

De aanwezigheid van ondernemers en bedrijven in woonwijken is echter geen nieuw verschijnsel. Het gaat eerder om een terugkeer van bedrijvigheid in woonwijken; een ontwikkeling die zichtbaar is in verschillende westerse landen, waaronder Nederland. Tot ongeveer halverwege de twintigste eeuw waren bedrijven belangrijke elementen in stedelijke woonmilieus. Dit type bedrijvigheid bestond vaak uit kleinschalige, lokaal gerichte (familie)bedrijven en detailhandel, zoals de bakker, de slager of de kruidenier. Deze bedrijven waren van oudsher belangrijke actoren binnen het lokale sociale domein en het sociale weefsel in de wijk (Curran & Blackburn 1994; Jacobs 1961). Bedrijven die vandaag de dag gevestigd zijn in woonwijken verschillen van deze traditionele groep, bijvoorbeeld als gekeken wordt naar de sector waarin de bedrijven actief zijn en naar de manier waarop ze hun bedrijfsvoering vormgeven. Ook is er nog weinig bekend over de rol die deze bedrijven binnen het lokale sociale domein innemen.

Met de terugkeer van bedrijvigheid naar stedelijke woonwijken is het belangrijk om de interactie tussen de bedrijven en ondernemers aan de ene kant en de lokale omgeving aan de andere kant beter te begrijpen. Dat is wat dit proefschrift beoogt te doen door deze interactie te relateren aan de sociale netwerken van ondernemers gevestigd in woonwijken. Dit wordt gedaan omdat ondernemers via hun sociale netwerken in verbinding staan met andere personen en bedrijven. Deze sociale contacten vormen een bron van informatie, kapitaal en andere hulpbronnen die voor ondernemers belangrijk zijn in de ontwikkeling en groei van hun bedrijf. Daarnaast kan het hebben van sociale contacten binnen een bepaalde ruimtelijke context, zoals de lokale omgeving van de woonwijk, ertoe leiden dat een persoon in toenemende mate ingebed raakt in die specifieke plaats (Jack & Anderson 2002; McKeever et al. 2014; Korsgaard, Ferguson & Gaddefors 2015). Dit betekent dat de ondernemers die in dit proefschrift centraal staan via hun lokale netwerken ingebed kunnen raken in de woonwijken waar hun bedrijf gevestigd is en waar zij zelf in veel gevallen ook wonen. Om deze redenen worden de (lokale) sociale netwerken van deze ondernemers gezien als belangrijke schakel in het begrijpen van de relatie tussen ondernemers gevestigd in woonwijken (in het vervolg: lokaal gevestigde ondernemers) en de lokale context waarin zij actief zijn.

Theoretische achtergrond

In dit proefschrift wordt gebruik gemaakt van inzichten uit zowel de economische geografie als de sociologie. Als verbindende factor tussen deze vakgebieden staat de notie centraal dat elke vorm van economisch handelen ingebed is in verschillende contexten, waaronder de eerder genoemde sociale en ruimtelijke contexten (Audretsch et al., 2012; Welter, Gartner & Wright 2017; Zahra, Wright & Abdelgawad 2014). Economische activiteiten kunnen niet los gezien worden van de verschillende contexten waarin ze plaatsvinden en moeten daarom dienovereenkomstig worden bestudeerd (Stam 2016). Dat wordt in dit

proefschrift gedaan door de sociale contacten van lokaal gevestigde ondernemers centraal te stellen. Hiermee bouwt deze dissertatie verder op invloedrijk werk van, onder andere, Polanyi, Park, Simmel en, in grote mate, Granovetter (McKeever, Anderson & Jack 2014). Granovetter was een van de eersten die beargumenteerde dat bedrijven via hun sociale relaties verbonden zijn met hun externe omgeving (Granovetter 1985). Door hun sociale relaties kunnen bedrijven toegang krijgen tot middelen en hulpbronnen die deze netwerkcontacten in bezit hebben. Dit vormt de basis van de sociaal kapitaal theorie (Gedajlovic et al., 2013). Voorgaand onderzoek heeft aangetoond dat sociaal kapitaal van groot belang is voor bedrijven als het gaat om het voortbestaan en de ontwikkeling van hun bedrijf of het zien en benutten van kansen in de markt (Dyer & Singh 1998; Slotte-Kock & Coviello 2010; Zaheer & Bell 2005).

Het tweede perspectief waarvan gebruik gemaakt wordt in dit proefschrift, is de relationele economische geografie. Economische actoren, zoals bedrijven en ondernemers, raken door hun sociale netwerken verbonden met verschillende ruimtelijke contexten. Hierdoor ontstaat een wisselwerking waarbij ondernemers zowel deel uit maken van en bijdragen aan een bepaalde ruimtelijke context als tegelijkertijd zelf beïnvloed worden door deze context (Trettin & Welter 2011). Deze wisselwerking staat in dit proefschrift centraal door de analyse van de sociale netwerken van lokaal gevestigde ondernemers. In eerdere studies naar de sociale netwerken van ondernemers is er beperkte aandacht geweest voor de ruimtelijke context in het algemeen en de lokale context in het bijzonder als een bron van netwerkcontacten (Korsgaard, Ferguson & Gaddefors 2016; Welter 2011). Een aantal recente studies heeft deze leemte in de literatuur aangevuld door te laten zien dat de lokale omgeving een belangrijke bron van hulpbronnen kan zijn voor bedrijven die daar gevestigd zijn (Folmer & Kloosterman 2017; Sleutjes 2012). Dit proefschrift bouwt voort op deze inzichten door te kijken naar het belang van de lokale omgeving als bron van netwerkcontacten voor ondernemers gevestigd in woonwijken en de mate waarin deze ondernemers door de tijd ingebed raken in lokale netwerken. Dit proces van (lokale) inbedding wordt bestudeerd aan de hand van analyses van netwerkverandering door de tijd.

Veel bestaand onderzoek naar het sociaal kapitaal van bedrijven richt zich op het effect en de compositie van de sociale netwerken op één punt in de tijd en negeren daarmee het feit dat sociale netwerken door de tijd kunnen veranderen. Door hun netwerken te veranderen en aan te passen, kunnen bedrijven inspelen op zowel interne als externe veranderingen waardoor ze hun bedrijfsresultaat kunnen verbeteren of zich kunnen wapenen in tijden van economische neergang. Daarom worden in dit proefschrift de netwerken van lokaal gevestigde ondernemers bestudeerd vanuit dynamisch perspectief, waardoor zowel netwerkverandering door de tijd als de effecten van deze veranderingen op bedrijfsprestaties onderzocht kunnen worden. Daarnaast wordt door het bestuderen van

de netwerkdynamiek ook de veranderende relatie tussen ondernemers en hun (lokale) contacten diepgaand onderzocht.

Tot slot wordt in dit proefschrift ook de interactie tussen ondernemers en hun buurtcontext geanalyseerd door te kijken naar (lokale) sociale waarde creatie door lokaal gevestigde ondernemers. Gebaseerd op inzichten uit de literatuur over sociaal ondernemerschap en maatschappelijk verantwoord ondernemen worden de potentiële sociale betrokkenheid van lokaal gevestigde ondernemers en de potentiële drijvende krachten achter dit gedrag onderzocht. Hierbij wordt specifiek aandacht besteed aan de rol van hun (lokale) sociale netwerken als verklarende factor hierin.

Onderzoeksmethoden

Deze studie is gebaseerd op zowel kwantitatief als kwalitatief empirisch onderzoek, waarbij in het merendeel van de hoofdstukken de nadruk ligt op kwantitatieve analyses. De data die hiervoor gebruikt worden, zijn afkomstig uit een grootschalig sociaal netwerk onderzoek onder ondernemers gevestigd in stedelijke woonwijken in Nederland, getiteld '*the Survey on the Social Networks of Entrepreneurs*' (SSNE). Deze enquête is inmiddels tweemaal uitgevoerd; de eerste ronde in 2008 (SSNE1) en de tweede in 2014 (SSNE2). In beide ronden van de SSNE zijn in veertig steekproefsgewijs geselecteerde Nederlandse gemeenten ondernemers ondervraagd. Om deel te kunnen nemen aan het onderzoek moesten deze ondernemers aan een aantal criteria voldoen. Zo moest hun bedrijf gevestigd zijn in één van de woonwijken die binnen de desbetreffende gemeente geselecteerd waren. Daarnaast moesten zij zelf ook woonachtig zijn in diezelfde wijk of binnen tien minuten loopafstand van die wijk. Deze criteria hadden als doel om enkel ondernemers te selecteren die zowel met hun bedrijf gevestigd zijn in een specifieke woonwijk en daar zelf ook (in de directe omgeving) wonen.

De vragenlijst van de SSNE richt zich voornamelijk op de sociale hulpnetwerken van de ondernemers, zowel met betrekking tot hun bedrijfsactiviteiten alsook op persoonlijk vlak. Het sociale netwerk van elke ondernemer is met behulp van naam-genererende vragen in kaart gebracht, waardoor er een gedetailleerd beeld van elk individueel netwerkcontact en de relatie met de ondernemer verkregen kan worden. Daarnaast is in de SSNE ook uitgebreide informatie verzameld over relevante bedrijfskenmerken, zoals bedrijfssucces, –groei en de kenmerken van de individuele ondernemer, waaronder leeftijd, opleidingsniveau en eerdere ervaringen met ondernemerschap. Deze verschillende componenten hebben geleid tot een schat aan brede en gedetailleerde data over de groep lokaal gevestigde ondernemers in Nederland.

In beide ronden van de SSNE hebben ongeveer 385 lokaal gevestigde ondernemers deelgenomen. In totaal noemden zij 2.408 netwerkcontacten in 2008 en 2.646 contacten in 2014. Van de 385 ondernemers die aan de SSNE1 hebben deelgenomen, heeft een groep van 214 ondernemers ook in de SSNE2 geparticipeerd. Hierdoor kan deze groep van 214 ondernemers door de tijd gevolgd worden. Dit betekent onder andere dat het mogelijk is om hun sociale netwerken in 2008 te vergelijken met die in 2014 en zo netwerkveranderingen door de tijd te kunnen onderzoeken. Deze 214 ondernemers hebben een totaal van 1.359 netwerkcontacten genoemd in 2008 tegenover 1.436 contacten in 2014.

Naast de kwantitatieve analyses is dit proefschrift ook gebaseerd op kwalitatief empirisch onderzoek. Deze kwalitatieve component bestaat uit diepte-interviews met 18 ondernemers en een zevental expert interviews met beleidsmakers en wijkmanagers. In de diepte-interviews demet ondernemers is gevraagd in hoeverre en op welke manier zij zich verbonden voelen met hun lokale omgeving. Daarnaast is gekeken of en op welke manier deze verbondenheid zich vertaalt naar (lokale) sociale waarde creatie van deze ondernemers. Dit deel van het onderzoek is gesitueerd in drie woonbuurten in Amersfoort, te weten de Utrechtseweg (wijk: Bergkwartier), Bloemenbuurt-Oost (wijk: Soesterkwartier) en de Wiekslag (wijk: Liendert) en twee buurten in 's-Hertogenbosch, te weten de Muntel (wijk: Muntel-de Vliert) en de Rompert (wijk: Noord). Deze wijken zijn geselecteerd op basis van verschillen in leefbaarheidsindicatoren, zoals sociale cohesie (de mate van samenhang in een buurt) en collectieve zelfredzaamheid (de mate van samenwerking en sociale controle in de wijk). Hierdoor kan er ook naar verschillen op buurtniveau gekeken kan worden. De expert interviews in beide gemeenten gingen in op het gemeentelijk beleid met betrekking tot ondernemerschap en de lokale sociale context in elke wijk.

Bevindingen

Dit proefschrift is opgebouwd uit vijf empirische hoofdstukken. Hoofdstukken twee en drie behandelen de eerste deelvraag, hoofdstukken vier en vijf gaan in op de tweede deelvraag en hoofdstuk zes geeft antwoord op de derde deelvraag. Hieronder worden per deelvraag de belangrijkste uitkomsten besproken.

Deelvraag 1

In de hoofdstukken twee en drie staat netwerkverandering centraal en wordt gekeken naar veranderingen in samenwerkingsrelaties met andere bedrijven (hoofdstuk twee) en veranderingen in termen van netwerkgrootte en netwerkcompositie (hoofdstuk drie). Samen beantwoorden deze hoofdstukken de eerste deelvraag:

In hoeverre veranderen de netwerken van ondernemers gevestigd in woonwijken door de tijd en hoe verhouden deze veranderingen zich tot de kenmerken van de ondernemer zelf, diens bedrijf en diens sociale netwerk?

De uitkomsten gepresenteerd in hoofdstuk twee laten zien dat de lokaal gevestigde ondernemers in beperkte mate samenwerkingsrelaties aangaan met andere bedrijven. Dit geldt zowel voor samenwerkingsrelaties op lokaal als niet-lokaal niveau. Ook laten de analyses zien dat het aantal lokale samenwerkingsrelaties door de tijd niet groeit. Deze bevindingen staan in contrast met de verwachtingen die op basis van de literatuur geformuleerd zijn over het vermeende belang van de lokale omgeving als een bron van samenwerkingspartners in de eerste plaats en een toename van deze lokale focus door de tijd in de tweede plaats. De verwachting was dat een groot deel van de netwerkcontacten van de lokaal gevestigde ondernemers uit lokale contacten zou bestaan. Dit omdat de ondernemers zowel wonen als werken in eenzelfde woonbuurt en daardoor zeer frequent in deze omgeving aanwezig zijn, waardoor ze een hoge kans zouden hebben om potentiële lokale samenwerkingspartners te leren kennen, een band met hen op te bouwen en zodoende ook veel lokale samenwerkingsrelaties zouden aangaan (Andersson & Larsson 2016; Huggins & Johnston 2010). Deze sterke lokale samenwerkingsverbanden van de buurtgerichte ondernemers zijn echter niet gevonden in de analyses. Een mogelijke verklaring hiervoor kan gevonden worden in een andere opvallende uitkomst uit hoofdstuk twee, namelijk dat de lokaal gevestigde ondernemers hoofdzakelijk in 'tijdelijke coalities' samenwerken met andere bedrijven. Uit de analyses is gebleken dat ongeveer 90% van de samenwerkingsrelaties die de respondenten in 2008 genoemd hebben in 2014 vervangen waren. Dit betekent dat samenwerking met andere bedrijven slechts van tijdelijke aard is voor de lokaal gevestigde ondernemers en dat er maar in een enkel geval sprake is van continue samenwerking door de tijd.

Het beeld dat uit hoofdstuk twee naar voren komt - een beperkt aantal samenwerkingsrelaties en dat deze contacten van tijdelijke aard zijn - kan deels verklaard worden uit de uitkomsten van hoofdstuk drie. Dit hoofdstuk richt zich zowel op netwerkcontacten die voor zakelijke doeleinden worden gebruikt als contacten die voor privédoeleinden worden gebruikt, aangezien het aannemelijk is dat de ondernemers ook hun privé-netwerken zullen aanwenden ten behoeve van hun bedrijf (Devins et al., 2005). Uit dit hoofdstuk blijkt dat de lokaal gevestigde ondernemers gebruik maken van hun sociale netwerkcontacten zowel voor zakelijke als privé doeleinden en in sommige gevallen zelfs voor beiden. Daarnaast laat dit hoofdstuk zien dat er onder de lokaal gevestigde ondernemers minder netwerkverandering plaatsvindt dan er op basis van de literatuur werd verwacht (Butler & Hansen 1991; Garnsey 1998). Ook komt uit de analyses naar voren dat grotere netwerken door de tijd kleiner worden en vice versa, wat duidt op een proces van convergentie als

het gaat om de gemiddelde netwerkomvang van lokaal gevestigde ondernemers. Dit suggereert dat er sprake is van een optimale netwerkgrootte, waarbij de kosten van het onderhouden van het netwerk enerzijds en de baten van het hebben van de contacten anderzijds in balans zijn.

In hoofdstuk drie is tevens gekeken naar veranderingen in drie verschillende dimensies van netwerkcompositie, te weten: het aantal familiecontacten, het aantal lokale contacten en de mate waarop contacten voor zowel bedrijfs- als privédoeleinden gebruikt worden (overlappende contacten). Waar geen veranderingen gevonden zijn wat betreft het aantal familiecontacten aanwezig in de ondernemersnetwerken, blijkt het aantal lokale netwerkcontacten door de tijd wel significant toe te nemen. Dit suggereert dat de lokale omgeving in de loop van de tijd als bron van netwerkcontacten belangrijker is geworden. Er is ook bewijs gevonden dat netwerkcontacten soms overlappende rollen vervullen, omdat ze worden ingeschakeld bij zowel bedrijf gerelateerde als privé hulpvragen.

Samengenomen vertellen hoofdstukken twee en drie een gemêleerd verhaal van veranderingen in netwerkomvang en – compositie. Er is geen eenduidig beeld te schetsen van netwerkverandering door de tijd voor de lokaal gevestigde ondernemers die hier onderzocht worden. Wat in deze hoofdstukken wel naar voren komt is dat door verschillende elementen van netwerkverandering te onderzoeken diverse patronen in de ondernemersnetwerken blootgelegd zijn die anders niet aan de oppervlakte waren gekomen, zoals de tijdelijke coalities in de samenwerkingsrelaties en het bestaan van overlap in bedrijf gerelateerde en privé hulp. Daarmee tonen de hoofdstukken twee en drie aan dat het zinvol is om netwerkverandering door de tijd op diepgaande wijze te onderzoeken.

Deelvraag 2

Veranderingen in netwerkgrootte en – compositie zijn in hoofdstuk vier en vijf gebruikt als verklarende factoren, waarbij deze netwerkveranderingen gerelateerd zijn aan bedrijfssucces en veranderingen daarin. Aan de hand van deze analyses is deelvraag twee beantwoord, welke luidt:

Hoe beïnvloeden veranderingen in de sociale netwerken van ondernemers en veranderingen in bedrijfsprestaties elkaar?

De analyses gepresenteerd in hoofdstuk vier suggereren dat er een wederkerige relatie bestaat tussen veranderingen in netwerkomvang en bedrijfsprestaties. Deze uitkomsten zijn in lijn met de literatuur over het belang van (veranderingen in) sociaal kapitaal en de hulpbronnen die hieruit voortkomen voor bedrijfsontwikkeling en –prestaties (Hoang & Yi 2015; Stam, Arzlanian & Elfring 2014). Daarnaast laat dit hoofdstuk ook zien dat netwerk-

veranderingen kunnen voortkomen uit verandering in bedrijfsprestaties door de tijd, iets waar in eerder onderzoek slechts in beperkte mate aandacht aan is besteed (Gherhes et al., 2016). Dit inzicht biedt vervolgens weer aanknopingspunten voor vervolgonderzoek naar deze wederkerige relatie tussen veranderingen in netwerkomvang en bedrijfsprestaties.

In hoofdstuk vier is ook aandacht besteed aan de competenties van ondernemers om nieuwe informatie uit hun sociale netwerken te verkrijgen, te begrijpen en in te zetten ten behoeve van hun bedrijf (Qian & Acs 2013). De uitkomsten suggereren dat bedrijfsspecifieke opleidingen en cursussen een positieve bijdrage leveren aan de mate waarop ondernemers kunnen profiteren van uitbreiding van hun sociale netwerken en daarmee van de toename in hun sociaal kapitaal. Dit geeft aan dat de toegang tot sociaal kapitaal op zichzelf niet voldoende is om hiervan bedrijfsmatig te kunnen profiteren, maar dat het van belang is te weten hoe de hulpbronnen afkomstig van netwerkcontacten optimaal kunnen worden ingezet en gebruikt.

Vergelijkbaar met hoofdstuk vier, wordt in hoofdstuk vijf ook gekeken naar de relatie tussen netwerkverandering en bedrijfsprestaties. Daarnaast wordt in dit hoofdstuk de invloed van netwerkstabiliteit in ogenschouw genomen. In de literatuur bestaan argumenten voor enerzijds het belang van stabiele en langdurige netwerkrelaties en anderzijds het belang van netwerkverandering door de tijd als het gaat om bedrijfsprestaties (Arregle et al., 2015; Granovetter 1973). In dit hoofdstuk worden beide argumenten verkend aan de hand van analyses van veranderingen in netwerkomvang en verschillende dimensies van netwerkcompositie. Hierbij wordt niet zozeer gekeken naar netto veranderingen in netwerkomvang en – compositie, maar met name naar veranderingen op het niveau van individuele netwerkcontacten, waardoor meer gedetailleerde analyses mogelijk zijn.

De uitkomsten laten zien dat de sociale netwerken van de lokaal gevestigde ondernemers turbulenter zijn dan de analyses uit de voorgaande hoofdstukken, waarbij gekeken is naar netto veranderingen, suggereren. Dankzij de analyses op het niveau van het individuele netwerkcontact in hoofdstuk vijf zijn de grote veranderingen binnen de ondernemersnetwerken blootgelegd. De hoge mate van turbulentie in de ondernemersnetwerken blijkt echter geen invloed te hebben op de prestaties van de bedrijven. Dit betekent dat er geen bevredigend antwoord gegeven kan worden op de vraag of stabiliteit van netwerkcontacten beter is dan netwerkverandering wat betreft bedrijfsprestaties. Ook als er gekeken wordt naar verschillende dimensies van netwerkcompositie ontstaat geen eenduidig beeld. In hoofdstuk vijf is gekeken naar de relatie tussen bedrijfsprestaties enerzijds en relatie-sterkte (oftewel sterke en zwakke netwerkrelaties), relatie-nabijheid (oftewel: lokale contacten) en relatie-overlap (oftewel: overlap in de rollen die een netwerkcontact vervult) anderzijds. Voor geen van deze drie dimensies is bewijs gevonden dat veranderingen door

de tijd leiden tot verhoogde bedrijfsprestaties. Wel laten de analyses in dit hoofdstuk zien dat de lokaal gevestigde ondernemers gebruik maken van een combinatie van langdurige sterke relaties en tijdelijke coalities. De ondernemers richten hun netwerken dusdanig in dat veranderingen in netwerkcontacten mogelijk zijn, maar dat er ook langdurige, sterke relaties opgebouwd kunnen worden.

Samenvattend kan gesteld worden dat de uitkomsten uit hoofdstuk vier en vijf tot op zekere hoogte een verschillend verhaal vertellen. Waar hoofdstuk vier laat zien dat veranderingen in netwerkomvang een positief effect hebben op veranderingen in bedrijfsprestaties, worden in hoofdstuk vijf geen verbanden gevonden tussen veranderingen in netwerkcompositie en bedrijfsprestaties. Als de conclusies uit beide hoofdstukken echter samengenomen worden, dan wordt duidelijk dat netwerkverandering een positieve bijdrage kan leveren aan veranderingen in bedrijfsprestaties (hoofdstuk vier), maar dat het irrelevant lijkt wie er in het netwerk aanwezig is. Met andere woorden, voor de hier onderzochte ondernemers lijken de kenmerken van individuele netwerkcontacten en hun relatie met de ondernemer ondergeschikt te zijn aan het effect van netwerkvergroting op het verbeteren van de bedrijfsprestaties.

Deelvraag 3

In hoofdstuk zes staat (lokale) sociale waarde creatie centraal. Hiermee wordt bedoeld dat ondernemers en bedrijven niet alleen een economische bijdrage leveren aan hun (lokale) omgeving, maar ook binnen het sociale domein waarde toe te voegen voor mens en maatschappij. Er is onderzocht of lokaal gevestigde ondernemers hiermee bezig zijn en wat hun gedrag drijft:

In hoeverre zijn ondernemers gevestigd in woonwijken betrokken bij lokale sociale waarde creatie en wat is de rol van hun lokale sociale netwerken hierin?

Hoofdstuk zes is gebaseerd op diepte-interviews met 18 ondernemers in Amersfoort en 's-Hertogenbosch en op expertinterviews in beide steden. Er wordt verondersteld dat de lokaal-gevestigde ondernemers actief zijn in lokale sociale waarde creatie omdat zij zich verbonden voelen met hun lokale omgeving en daarom een positieve lokale bijdrage willen leveren die verder gaat dan puur de economische dimensie. Het was de verwachting dat de lokale sociale netwerken en de mate van lokale inbedding van de ondernemers hierbij een belangrijke rol speelden (Jack & Anderson 2002; Korsgaard, Ferguson en Gaddefors 2015; Lepoutre & Heene 2006; Omorede 2014).

Uit de gesprekken met de ondernemers in Amersfoort en Den Bosch komt naar voren dat er voor hen zeker een rol is weggelegd als het gaat om sociale waarde creatie, maar dat de

daadwerkelijke sociale bijdrage per persoon verschilt. In de meeste gevallen zijn de participanten van de interviews actief in kleinschalige, lokaal georiënteerde vormen van sociale waarde creatie gericht op het verbeteren van (lokale) leefbaarheid. Veel ondernemers zijn overdag aanwezig in de wijk en signaleren bijvoorbeeld onregelmatigheden rondom parkeren en afval of overlast van bepaalde groepen die in de buurt rondhangen. Deze zaken proberen ze dan zelf aan te pakken of er melding van te maken bij de gemeente. Andere voorbeelden van lokale sociale waarde creatie zijn het sponsoren van lokale activiteiten en het gratis aanbieden van diensten of producten voor buurtactiviteiten.

Naast de specifieke activiteiten van de ondernemers op het gebied van sociale waarde creatie zijn op basis van de interviews de drijfveren achter hun gedrag onderzocht. De persoonlijke en intrinsieke motivatie van een ondernemer om een (lokale) sociale bijdrage te leveren kwam hieruit naar voren als de belangrijkste drijfveer. De meeste ondernemers die actief zijn in lokale sociale waarde creatie deden dit vanuit een persoonlijke overtuiging. Het feit dat ze veel lokale sociale contacten hebben, heeft maar in beperkte mate een direct effect op de lokale sociale waarde creatie van de ondernemers. De sociale netwerken hebben echter wel een duidelijke versterkende rol op de mate waarop de ondernemers actief zijn in (lokale) sociale waarde creatie. Dit versterkende effect van lokale sociale netwerken is vooral duidelijk voor bedrijven met een lokale marktfocus en voor wie lokale klanten belangrijke stakeholders zijn. De ondernemers van dit type bedrijven zien hun betrokkenheid in lokale sociale waarde creatie tevens als imagoversterkend promotiemiddel bij hun clientèle.

Ook de mate van lokale inbedding blijkt een belangrijke stimulans voor ondernemers om actief te worden in lokale waarde creatie. Omdat ze veel lokale netwerkcontacten hebben, willen sommige ondernemers ook een bijdrage leveren binnen het lokale sociale domein. Dit effect van lokale inbedding blijkt echter niet altijd uitsluitend toe te schrijven te zijn aan de lokale sociale netwerken van ondernemers. In een aantal gevallen voelt ondernemers zich zeer verbonden en verankerd in de wijk, terwijl ze nauwelijks lokale sociale contacten hadden. Het gevoel van lokale inbedding kan dus op verschillende manieren tot stand komen en heeft vervolgens een versterkend effect op de verschillende drijfveren van (lokale) sociale waarde creatie.

Synthese

Dit proefschrift heeft aangetoond dat de sociale netwerken van ondernemers gevestigd in Nederlandse woonwijken zowel een bijdrage leveren aan veranderingen in hun bedrijfsprestaties als een stimulerende factor zijn in hun lokale sociale waarde creatie. De analyse van de sociale netwerken van deze lokaal gevestigde ondernemers heeft aangetoond dat zij sociaal ingebed zijn. Via hun sociale netwerken zijn ze verbonden met familie, vrienden

en, weliswaar in beperkte mate, andere bedrijven. Deze sociale netwerken zijn echter niet in beton gegoten, maar veranderen sterk door de tijd. Dit betekent dat de hier onderzochte ondernemers niet alleen vertrouwen op langdurige netwerkcontacten; na verloop van tijd worden nieuwe contacten aan het netwerk toegevoegd en verdwijnen oude contacten uit beeld. Omdat ondernemers het vermogen hebben hun netwerken door de tijd te veranderen, raken zij niet 'opgesloten' in langdurige sociale relaties die de mogelijke instroom van nieuwe kennis of vaardigheden via nieuwe contacten belemmeren. Hierdoor kunnen de lokaal gevestigde ondernemers met succes hun netwerkcontacten, zowel de oude als de nieuwe, gebruiken voor de ontwikkeling van hun onderneming.

De analyses laten verder zien dat netwerkveranderingen door de tijd, in de vorm van een uitbreiding van de netwerkomvang, een positief effect hebben op veranderingen in bedrijfsresultaat. Sociale netwerk contacten zijn dus essentieel voor lokaal gevestigde ondernemers, een bevinding die aansluit op de literatuur over het belang van sociaal kapitaal voor kleine en middelgrote bedrijven (Stam, Arzlanian & Elfring 2014; Watson 2007; Westlund & Adam 2010). Naast deze economische impact hebben de sociale netwerken van lokaal gevestigde bedrijven ook invloed binnen de sociale dimensie. Dit proefschrift maakt inzichtelijk dat de lokale sociale netwerken van de ondernemers kunnen fungeren als versterkers of aanjagers van lokale sociaal-maatschappelijke waarde creatie.

Hoewel het aantal ondernemers en bedrijven in Nederlandse woonwijken in de afgelopen decennia is gestegen, wordt in dit proefschrift aangetoond dat dit niet heeft geleid tot een hoge mate van lokale samenwerking door deze lokaal gevestigde ondernemers. De lokaal gevestigde ondernemers, die veelal ook wonen in de buurt waar hun bedrijf gevestigd is, zijn weliswaar sociaal ingebed, maar hun sociale netwerken bestaan maar in beperkte mate uit lokale contacten. Met andere woorden, hun lokale inbedding is beperkt gebleken. Dit suggereert vervolgens dat de rol van lokaal gevestigde ondernemers vandaag de dag anders is dan die van hun evenknieën uit de tweede helft van de vorige eeuw. Hedendaagse ondernemers in woonwijken lijken slechts beperkte behoefte te hebben aan lokale sociale netwerken en zijn hierdoor ook maar beperkt verbonden met hun lokale omgeving. De in dit proefschrift gebruikte inzichten uit de relationele economische geografie zijn daarom minder passend dan aanvankelijk gedacht werd. Dit maakt dat er behoefte is aan een kritische heroverweging van de rol en betekenis van lokaal gevestigde ondernemers en bedrijven in relatie tot hun lokale ruimtelijke context. Binnen de economische geografie vraagt dit om de ontwikkeling van nieuwe concepten en theorieën passend bij deze groep.

Vertaling naar beleid en vervolgonderzoek

Het feit dat het aantal ondernemers en bedrijven in Nederlandse woonwijken toeneemt, roept de vraag op of specifiek beleid gericht op deze groep ontwikkeld moet worden. Uit

dit onderzoek komt naar voren dat het moeilijk is passend beleid te formuleren vanwege de diversiteit van deze groep, als het gaat om hun kenmerken, behoeften en wensen. Als er gekeken wordt naar de sociale netwerken van lokaal gevestigde ondernemers in relatie tot hun bedrijfsprestaties, dan heeft deze dissertatie laten zien dat er geen eenduidig beeld bestaat, wat het formuleren van beleid ook bemoeilijkt. De hier onderzochte ondernemers blijken goed in staat hun netwerken aan te passen en uit te breiden door de tijd. Beleidsmaatregelen gericht op het stimuleren van interactie en samenwerking tussen ondernemers lijken daarom niet direct nodig. Alleen in het geval dat er belemmeringen bestaan waardoor ondernemers potentiële netwerkcontacten niet kunnen 'vinden' zou beleid ingezet kunnen worden omdat ondernemers anders kansen op interactie en samenwerking kunnen mislopen. Voorbeelden van dergelijke beleidsmaatregelen zijn steun bij de oprichting van (lokale) netwerkorganisaties of andere middelen die interactie tussen ondernemers kunnen stimuleren.

Uit dit proefschrift komt ook naar voren dat de hier onderzochte ondernemers een beperkt aantal lokale netwerkcontacten hebben, wat suggereert dat zij niet of nauwelijks ingebed zijn in hun lokale omgeving. Deze uitkomst kan ook gerelateerd worden aan de betrokkenheid van lokaal gevestigde ondernemers bij lokale sociale waarde creatie. Deze betrokkenheid is aanwezig, maar wel in beperkte mate. Veel van de geïnterviewde ondernemers hebben aangegeven wel een bijdrage te willen leveren aan sociale waarde creatie, maar hierin niet de trekker te willen zijn. Voor deze ondernemers geldt dat ze zich in eerste instantie voornamelijk willen (en moeten) richten op hun eigen bedrijf. Pas als de zaken goed gaan, kunnen ze het zich veroorloven (in de breedste zin van het woord) om over (lokale) sociale waarde creatie na te denken. Voor beleidsmakers is het belangrijk om ervan bewust te zijn dat de wens tot sociale waarde creatie in veel gevallen wel aanwezig is bij lokaal gevestigde ondernemers, maar dat zij niet snel uit zichzelf of als voortrekkers hierin zullen fungeren. Dit suggereert dat het interessant is om via beleid deze ondernemers bij reeds bestaande initiatieven te betrekken, bijvoorbeeld door hen hierover te informeren of door hen actief in contact te brengen met de initiatiefnemers. De overheid kan hier een belangrijke faciliterende rol in spelen.

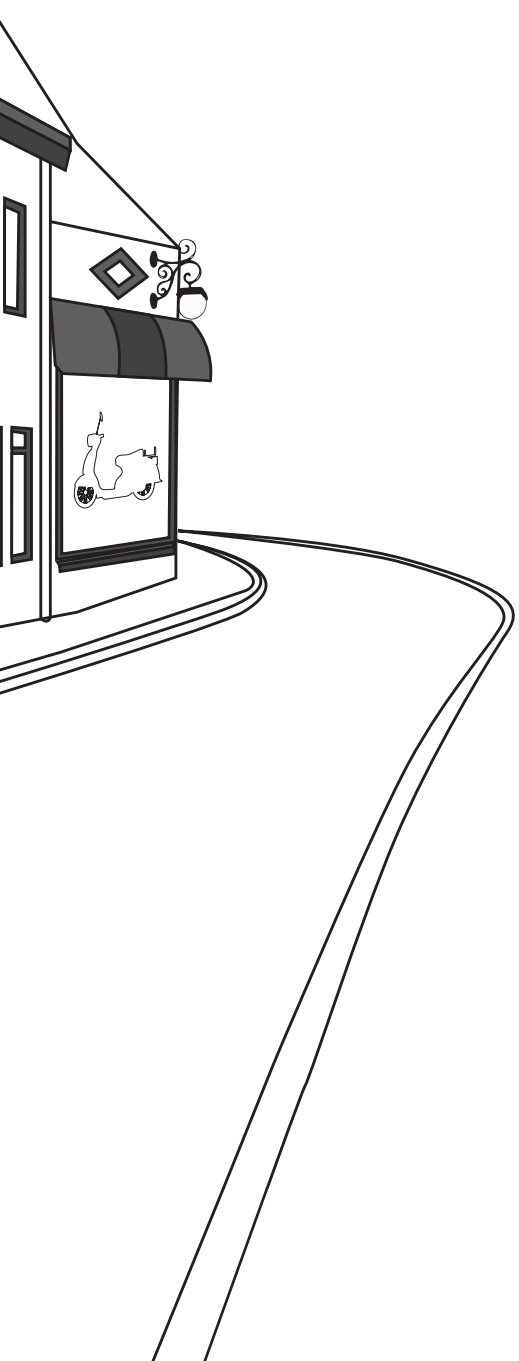
Dit proefschrift biedt ook diverse aanknopingspunten voor vervolgonderzoek waarvan er hier drie nader toegelicht worden. Allereerst is de hoge mate van turbulentie in de sociale netwerken van de lokaal gevestigde ondernemers interessant om diepgaander te onderzoeken. Hetzelfde geldt voor de uitkomst dat veel netwerkcontacten door de tijd verdwijnen en de ondernemers in veel gevallen gebruik maken van 'tijdelijke coalities'. Vragen die hierbij opkomen zijn: waarom blijven sommige netwerkcontacten over, terwijl anderen uit het netwerk verdwijnen en in hoeverre zijn netwerkenveranderingen het resultaat van bewuste en doelgerichte acties? Hierbij zou ook gekeken kunnen worden in

hoeverre bedrijven gevestigd in woonwijken hierin verschillen van bedrijven gevestigd op meer traditionele bedrijfslocaties.

Ten tweede verdienen de inzichten over de potentiële sociaal-maatschappelijke bijdrage van lokaal gevestigde bedrijven meer aandacht in toekomstig onderzoek. Vervolgonderzoek, zowel kwalitatief als kwantitatief, is nodig om meer inzicht te verkrijgen in de rol die ondernemerschap in woonwijken speelt en zou kunnen spelen in lokale sociale waarde creatie. Onder andere de rol van de sector waarin de ondernemer actief is, zou in dit verband nader onderzocht moeten worden, aangezien de analyses in hoofdstuk zes hebben aangetoond dat ondernemers die zich richten op een lokale clientèle vaak actief zijn in lokale sociale waarde creatie. Bovendien is het interessant om vergelijkingen te maken tussen verschillende groepen die aanwezig zijn in een wijk met betrekking tot hun lokale sociale waarde creatie. Hierbij kan gedacht worden aan vergelijkingen tussen bedrijven-aan-huis en ondernemers die niet vanuit huis werken of tussen lokale ondernemers en 'gewone' buurtbewoners.

De derde en laatste aanbeveling voor toekomstig onderzoek heeft betrekking op het keuzeproces van ondernemers om zich in de eigen woonwijk te vestigen en wat hun aanwezigheid betekent voor de veronderstelde positieve effecten van het combineren van wonen en werken op lokale leefbaarheid (Jacobs 1961; Sayers 2010). Beide onderwerpen zijn indirect besproken in dit proefschrift en verdienen meer aandacht in vervolgonderzoek. Beter begrip van de achterliggende motieven van hun locatiekeuze kan leiden tot meer inzicht in het proces van lokale inbedding van ondernemers in de woonwijk. Dit kan vervolgens meer licht werpen op de relatie tussen lokaal gevestigde ondernemers en de woonwijk als hun lokale bedrijfscontext. Want het is duidelijk dat het ondernemerschap is teruggekeerd naar de woonwijk. Met de opkomst van het aantal bedrijven in woonomgevingen wordt de buurteconomie opnieuw een belangrijke productie- en werkomgeving binnen het stedelijk landschap. Dit betekent dat economisch geografisch onderzoek naar de relatie tussen dit type ondernemers en hun sociale en ruimtelijke omgeving onverminderd relevant blijft.

DE BEER



Dankwoord

Oktober 2018

Een paar maanden geleden gaf ik een presentatie aan masterstudenten om hen te vertellen wat er komt kijken bij de beursaanvraag voor een promotietraject. Ik heb deze presentatie maar meteen aangegrepen om ook wat te vertellen over mijn ervaringen gedurende mijn bijna vier jaar als PhD en de afwegingen die ik aan het begin van dit traject gemaakt heb. Met terugwerkende kracht bleek deze presentatie tevens een mooi moment voor reflectie op de afgelopen jaren en de reis die ik daarin heb afgelegd.

Een reis die overigens al in de zomer van 2012 begon, toen ik als junior docent bij Sociale Geografie & Planologie aan de slag ging. Een half jaar daarvoor had ik, zo dacht ik destijds, afscheid genomen van de Universiteit Utrecht, maar blijkbaar had mijn *alma mater* andere plannen met me. Na twee jaar als junior docent gewerkt te hebben, ben ik in december 2014 begonnen aan het avontuur dat een promotietraject heet. Dat avontuur is nu bijna tot een einde gekomen. Voor mij stond de verhuizing afgelopen mei uit het Willem C. Van Unnikgebouw, waar ik vanuit mijn studietijd al de nodige mooie herinneringen aan had, dan ook symbool voor het einde van een tijdperk. Het tijdperk als promovenda aan de Universiteit Utrecht.

Hoe kijk ik hier op terug? Voornamelijk zeer positief. Ook al dacht ik redelijk weloverwogen voor dit avontuur te hebben gekozen, toch was de reis uitdagender maar zeker ook leuker dan gedacht. Elke PhD krijgt te maken met tegenslagen en momenten waarop je het allemaal even niet meer ziet zitten en je twijfelt of het ooit wel goed gaat komen met dat proefschrift. Toch heeft het plezier bij mij altijd overheerst en heb ik nooit getwijfeld dat ik dit proces tot een goed einde zou brengen. Dit is voor een belangrijk deel te danken aan alle lieve mensen die me tijdens de afgelopen jaren gesteund en geholpen hebben. Aan jullie wil ik dit dankwoord graag richten.

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