

Social Capital and Nascent Entrepreneurship

Bachelor thesis
Tom van der Horst (334430)
Supervisor: Dr. P.W. van der Zwan
Erasmus School of Economics
Department of Applied Economics
2013-2014

Abstract

This study examines the link between social capital and (nascent) entrepreneurship with social capital as the explanatory factor. First, the leading studies on the link between social capital and (nascent) entrepreneurship are discussed and expectations for the empirical part of this paper are formed. Subsequently, the association between social capital and nascent entrepreneurship is studied empirically, knowing an entrepreneur is taken as the proxy variable for social capital. For this empirical part of the study, data were taken from the Global Entrepreneurship Monitor (GEM) in 2010. Individuals living in the Netherlands, Belgium and the United Kingdom have been selected with a random sample of at least 2,000 individuals in each country. The conclusion of this study, based on both the existing literature and the empirical part in this paper, is that an individual' social capital in the form of knowing an entrepreneur increases the chance of becoming an nascent entrepreneur, having entrepreneurial intentions and having entrepreneurial self-efficacy.

Keywords: Nascent entrepreneurship; social capital; entrepreneurial intentions; entrepreneurial self-efficacy

Table of Contents

1. Introduction.....	4
2. Theoretical Framework	8
3. Formulation of hypotheses	13
4. Data & Methods	15
5. Results	19
6. Conclusion	21
Bibliography.....	24
Appendix.....	26

1. Introduction

This paper attempts to establish a link between social capital and (nascent) entrepreneurship. Social capital can be defined as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit (Nahapiet and Ghoshal, 1998, p. 243). It has been shown that social capital plays an important role at the macro-level, for example in stimulating a region’s economic development (Beugelsdijk and Van Schaik, 2005). The present thesis focuses on the individual level and investigates whether social capital is related to an individual’s engagement in three early stages of entrepreneurship. The stages to be distinguished are entrepreneurial self-efficacy, intentional entrepreneurship, and nascent entrepreneurship.

Nascent entrepreneurs are individuals who are actively taking steps to start a business. Broad areas of research topics on nascent entrepreneurship have been studied: the discovery process; the exploitation process; some particular themes (gender; ethnicity, and growth aspirations), the bigger picture (i.e., aggregate level antecedents and effects of nascent entrepreneurship) and of course personal factors leading to nascent entrepreneurship status. The GEM (Global Entrepreneurship Monitor) research has yielded estimates that about 500 million people were simultaneously involved in nascent or recent entrepreneurial activity, indicating the possible impact of (nascent) entrepreneurial research (Reynolds, et al., 2005). Aggregate level analysis have helped map out the nature and scope of nascent (and recent) entrepreneurial activity across countries worldwide. It should be noted, however, that in many participating countries little or no academic entrepreneurship research was undertaken before. Therefore, research on nascent entrepreneurship in a wider variety of countries is needed, and the GEM study can act as the catalyst that directs the right human and financial resources to academic research in this area. Looking closer at the personal factors leading to nascent entrepreneurship status, considerable evidence can be found that higher levels of relevant human capital, as indicated by education and experience (especially previous start-up experience and work experience in young and small firms), increases individuals’ propensity to engage in venture start-up processes. There is also evidence that social capital is important for the decision to become an entrepreneur,

these results are discussed in the theoretical framework of this thesis. (Davidsson, Nascent entrepreneurship: empirical studies and developments, 2006)

In the last two decades research shows the importance of social capital for entrepreneurs and their new businesses, often highlighting a positive impact of social capital on new business performance (Davidsson & Honig, The role of social and human capital among nascent entrepreneurs, 2003). Indeed, Stam et al. (2013) provide an extensive list of studies that investigate the relationship between several measures of social capital and business performance. This raises the question whether an individual's social capital, often regarded as an advantage, influences the choice of becoming an entrepreneur. Hence, the research question is stated as follows:

How are an individual's social capital and his/her choice to become an entrepreneur related?

This research question needs a clarification here. It turns out that several studies have focused on the relationship between the decision to become an entrepreneur and social capital. I will give an overview of the most important studies from the previous decade in the next section. A summary of these studies will be provided. Subsequently I will perform an empirical test about the relationship between social capital and entrepreneurship. For measuring entrepreneurship I will zoom in on three stages that have not been included frequently in earlier studies about social capital and entrepreneurship.

The importance of social capital for engaging in the early stages of entrepreneurship has been stressed before, and is the basis of the importance of the research question of this thesis. An example of a study that stresses the importance of social capital for engaging in the early stages of entrepreneurship is that of De Carolis and Saporito (2006). This study focuses on the relationships among social capital, cognitive processes, and entrepreneurial opportunities in order to create a model that lays the groundwork for further theory development and empirical research (De Carolis & Saporito, 2006). The results suggest the importance of network relationships to the stimulation and advancement of new ideas, one of the first stages of nascent entrepreneurship.

The article of Casson and Della Giusta (2007) examines the key concepts of networks, trust and social capital and contributes to both the importance of social networks for nascent

entrepreneurship and possible implications of the research question. They focused on building entrepreneurial networks that will improve the performance of the economy. One thing they argued was the need of different types of social networks for different purposes, some types were best to support entrepreneurial activity in the first stages, other kinds were best used in later stages of entrepreneurship. Looking at the implications of this study, some government implications were discussed. One interesting note is the fact that a lot of different social groups that support business activity already exist, and thus, that better results might be achieved by strengthening the activities of these groups, rather than by subsidizing the establishment of new groups that compete with them.

Another study linking to the importance of social networks on nascent entrepreneurship is a 'first attempt to combine elements such as social capital, entrepreneurship, and spatially bound producer surplus in a common analytical framework', which finds that social capital can be analyzed in the same way as other capital (Westlund & Bolton, 2003). However, social capital seems to be the most diversified of capital forms and this means that social capital ought to be studied in various ways at different levels. For example by using techniques of participant observation and interviews to study the structure and operation of networks (Anderson & Jack, 2002). A result of this study is that the entrepreneurs saw social capital formation as a natural part of being entrepreneurial, the formation process was viewed as a basic element of developing their business.

The research question of the present thesis is important because it facilitates an insight in the decision of becoming an entrepreneur. Social environment plays an important role here: Djankov et al. (2006) show that entrepreneurs are much more likely to have family members who are entrepreneurs and childhood friends who became entrepreneurs (Djankov, Qian, Roland, & Zhuravskaya, 2006). The research question of this paper wants to generate a conclusion more broadly applicable. This is done on the one hand by adding to the current literature the variable of personally knowing an entrepreneur who started a business in the last two years as opposed to knowing an entrepreneur without a time constraint. On the other hand this thesis wants to generate a conclusion more broadly applicable by including data of three countries instead of one, as studies in different countries have generated different conclusions on the impact of social capital on nascent entrepreneurship (Davidsson, *Nascent entrepreneurship: empirical studies and developments*, 2006).

This paper uses two methods to answer the research question. The first method is a research of the existing literature of social capital influencing the decision to become an entrepreneur (section 2). Different measures of social capital and entrepreneurship as well as conclusions are discussed. Based on this literature overview, hypotheses are formulated in section 3. The second method is an empirical research using data from the Global Entrepreneurship Monitor of 2010. Details about measurement are provided in section 4 whereas the results are presented and discussed in section 5. The empirical part focuses on a specific dimension of social capital that is related to business formation, i.e. whether an individual personally knows an entrepreneur who has started a business in the past two years.

The added value of the present thesis comes from the meta-analysis comparing different studies all researching the influence of social capital on becoming an entrepreneur and, by doing this, this paper tries to be able to formulate more general conclusions on the association between social capital and nascent entrepreneurship. Another contribution to the existing studies of social capital is made by empirically researching the influence of knowing an entrepreneur on nascent entrepreneurship, entrepreneurial intentions and confidence in oneself' entrepreneurial skills.

The conclusion of this study, based on existing literature and the empirical part in this paper, is that an individual' social capital in the form of knowing an entrepreneur increases the chance of becoming an nascent entrepreneur, having entrepreneurial intentions and having entrepreneurial self-efficacy.

2. Theoretical Framework

This section discusses the findings from eight studies on the topic of social capital and entrepreneurship, the literature part of this thesis. In this thesis studies with quantitative research have been selected to account for a good comparison. Qualitative research studies do exist but are not part of this literature research. Studies are also selected on year of publication, roughly the last 15 years, because these studies are the most recent and thus represent the most relevant results. A chronological overview of the eight relevant studies is given where the conclusions and measures used are discussed. Subsequently the hypotheses for the empirical part of this study are presented.

(Abell, Crouchley, & Mills, 2001)

The first study looked at found a small but significant influence of social capital on being self-employed versus paid employment. Social capital was measured by looking at three non-family and non-household associates of an individual (weak ties) and three family members (except husband/wife and children; strong ties). In the period before the individual became self-employed they looked at the number of each of those two groups who were self-employed. The results of the second group were not significant, no association between the number of family members who were self-employed and being self-employed was found. But, the number of non-family and non-household associates who were self-employed showed a modest positive association with being self-employed. A possible reason weak ties showed an association and strong ties did not is that people who are closely tied together will share the same network and the same information sources (Burt, 1992). The data used comes from a survey in 1994 in which 15.000 members of the UK Institute of Management were asked retrospective information. Out of the responses 3.478 were usable (23%).

(Davidsson & Honig, 2003)

In one of the leading articles on nascent entrepreneurship Davidsson and Honig (2003) compare individuals in Sweden engaged in nascent activities (n=380) with a control group (n=608) after screening a much bigger sample (n=30.427). Both bonding and bridging social capital, strong or weak ties, were examined. Bonding social capital consisted of having parents in business, being encouraged by friends or family, having close friends or neighbors

in business and being married or not. Bridging social capital consisted of being in contact with an assistance agency, being a member of a start-up team and being a member of a business network. They examined both the effect on being a nascent entrepreneur, defined as an individual who initiated at least one entrepreneurial gestation activity during the time of the interview, and making the nascent entrepreneurial process go forward, as indicated by the frequency and pace by which nascent entrepreneurial activities are completed. For the effect on being a nascent entrepreneur only bonding social capital was examined and found to be significant and positively correlated. Both bonding and bridging social capital were significant and positively correlated with making the nascent entrepreneurial process go forward.

(Wagner & Sternberg, 2004)

Another interesting paper is one focusing on the role of regional policy for entrepreneurship by Wagner and Sternberg. Their econometric study showed that individuals with personal contacts to a young entrepreneur are more often nascent entrepreneurs, defined as being involved in starting a new business. Personal contacts to a young entrepreneur are part of one's bridging social capital. The study is based on data for 10.000 persons from a recent representative survey of the population in ten German planning regions, namely the Regional Entrepreneurship Monitor. Although they showed significant results, this is based on only one variable in one region and still needs more research.

(Arenius & Minniti, 2005)

Using a sample of 80.117 individuals in 28 countries, Arenius and Minniti (2005) use data of the Global Entrepreneurship Monitor (spring of 2002) to investigate the influence of knowing an entrepreneur on being an nascent entrepreneur. Due to individual-level missing data, 51.721 individuals were included in the final sample. Knowing someone who had started a business in the two years preceding the survey is used as the variable. Being an nascent entrepreneur is defined as follows; being active in setting up or helping to set up a new business in the last year and owning part or all of that business. Using this criteria, they indentified a total of 3.625 nascent entrepreneurs. The results showed that knowing other entrepreneurs is positively and significantly related to being a nascent entrepreneur. A possible reason for this, they discuss, is the benefit of information for new entrepreneurs.

(Liao & Welsch, 2005)

A study published in the same year focusing on the role of social capital in venture creation is that of Liao and Welsch (2005). The first, and most relevant for this topic, of the three research questions in this study investigates whether there are differences in social capital between the general population and nascent entrepreneurs. Social capital was measured by asking the respondents if many friends have started a new firm and if many of their family members have started a new venture, and letting them answer each question on a scale from 1 to 5. A nascent entrepreneur was defined as someone who had been active in starting up a new company in the last 12 months, expected to be owner of the new firm and the effort had to be still in the startup phase. The data used comes from the Panel Study of Entrepreneurial Dynamics. This is a longitudinal database of individuals who were in the process of starting firms. During 1998 and 1999 a total of 31,261 adults in the United States were contacted by this panel. The conclusion of the study is counterintuitive as it suggests that there is no significant difference of social capital of nascent and that of the general public. This is not in line with the conclusions of other papers discussed so far and thus suggests more research on the topic.

(Djankov, Qian, Roland, & Zhuravskaya, 2006)

One of the questions Djankov et al. (2006) address is the role social networks play in the promoting or discouraging of entrepreneurial activities. They conducted a study in the 2004-2005 academic year in China, interviewing 414 entrepreneurs and 561 non-entrepreneurs. An entrepreneur is defined as someone who is currently self-employed. Having parents as directors, having entrepreneurs in the family and having entrepreneurs as childhood friends account for one's social network. These variables are expected to be mostly determined before becoming an entrepreneur and hence, can be used to contribute to the subject of becoming an entrepreneur. Results were significant and quite strong; entrepreneurs are much more likely to have childhood friends as entrepreneurs and family members who are entrepreneurs than non-entrepreneurs. This suggests the importance of a social network and encourages studies in other countries.

(Mueller, 2006)

One study in another country is that of Mueller (2006) using data from the German Socio-Economic Panel Study conducted by the German Institute for Economic Research. This is a longitudinal panel study of private households in Germany which is carried out every year, starting in 1984. In this paper data from the 2003 survey is taken containing 22.611 respondent. Among other factors, the influence of social capital on one's decision to become a nascent entrepreneur is examined. Social capital is measured with the two dummy variables: either parents has been in business and household member currently in business. The decision to become an entrepreneur is measured by asking how likely it is that someone will become self-employed in the next two years. The influence of social capital is found to be significant and positively correlated with becoming a nascent entrepreneur. This is congruent with most other studies discussed and adds to the existing literature. One notion is that it only focuses on strong social ties.

(Linán & Santos, 2007)

The last article discussed here researches both strong and weak ties in order to examine the effect of social capital on entrepreneurial intentions. An empirical analysis was conducted with a sample of 354 Management and Economics students at two state universities in the area of Seville in 2004. Four bonding and one bridging constructs have been made out of 16 indicators for social capital; family entrepreneurs, non-family entrepreneurs, close valuation of entrepreneur, close approval and contact with entrepreneurial environment. The effects of these five constructs on the perceived desirability and the perceived feasibility of becoming an entrepreneur have been researched and after that the effect of these two on the entrepreneurial intention is considered. The effect of bonding social capital is found to be significant and positive on perceived desirability and partially on perceived feasibility (only knowing non-family entrepreneurs and the approval of the close environment). Bridging social capital has a significant and positive effect on perceived feasibility but the influence on perceived desirability could not be confirmed. Lastly, the influence of perceived desirability and feasibility on entrepreneurial intentions is found to be significant and positive so the effects of social capital, found in this study, are applicable on entrepreneurial intentions. Linan and Santos (2007) suggest much more research in this field will be conducted in order to get a better understanding of entrepreneurial intentions.

Conclusion

Looking at these studies we see that the studies focusing whether an individual is self-employed show the same results, namely: bonding social capital is positively associated with being an entrepreneur. (Abell, Crouchley, & Mills, 2001) (Djankov, Qian, Roland, & Zhuravskaya, 2006). This same conclusion can't be drawn for bridging social capital. However, the association of bridging social capital with being a nascent entrepreneur is found to be positive, the same holds for bonding social capital and being a nascent entrepreneur. (Davidsson & Honig, 2003) (Wagner & Sternberg, 2004) (Arenius & Minniti, 2005). Only one study in the overview of this thesis shows different results, in that study no differences have been found between the social capital of the general population and that of nascent entrepreneurs, this is for bonding social capital (Liao & Welsch, 2005). Because this is only one study I draw the general conclusion that social capital is positively associated with being a nascent entrepreneur, but this asks for further research to explain for these different results. The two studies focusing on entrepreneurial intentions show a positive association between social capital and entrepreneurial intentions, for both strong and weak ties (Mueller, 2006) (Linán & Santos, 2007).

The datasets used in these studies all have data from one country, except for that of Arenius and Minniti (Arenius & Minniti, 2005). Like this study, datasets with more countries are recommended for further research. Because of the conflicting result of the study in the United states, I recommend more research with datasets which include data from the US (Liao & Welsch, 2005). The results of the last study are very interesting because they show some differences in the association between bonding and bridging social capital and the perceived desirability and perceived feasibility of becoming an entrepreneur (Linán & Santos, 2007). The dataset used is not as strong as it only includes students and only from one city. Therefore, research on the link between social capital and the perceived desirability and feasibility of becoming an entrepreneur with a bigger and a more diverse dataset (not only students from one city) is recommended. In the next section the hypothesis for the empirical part of this thesis are formed.

3. Formulation of hypotheses

Remember that the remainder of this thesis contains an empirical part that focuses on the relationship between social capital and three stages of entrepreneurial activity. The three stages are nascent entrepreneurship, entrepreneurial intentions, and entrepreneurial self-efficacy. Most previous research has zoomed in on nascent entrepreneurship and this is why we discuss the expected relationship between social capital and this entrepreneurship stage first. Note that we employ a specific measure of social capital in our analysis, that is, whether an individual personally knows an entrepreneur who has started a business in the past two years. This measure is thus focused on business formation.

Being a nascent entrepreneur

All studies on nascent entrepreneurship discussed in this thesis, except that of Liao and Welsch (2005), suggest a positive influence of social capital on being a nascent entrepreneur, especially bonding social capital (Liao & Welsch, 2005). Knowing an entrepreneur is part of one's bonding social capital, hence expected is a positive effect of knowing an entrepreneur on being a nascent entrepreneur. The first hypothesis states as follows:

Hypothesis 1: Knowing an entrepreneur is positively associated with being a nascent entrepreneur.

Entrepreneurial intentions

Entrepreneurial intentions can be considered one step before moving into the nascent entrepreneurship phase. In order to better understand the process of becoming self-employed it is interesting to look at the association of social capital on entrepreneurial intentions. In the results part I will compare the associations of social capital with entrepreneurial intentions and social capital with actually being a nascent entrepreneur. Linan and Santos (2007) show a positive association between social capital and entrepreneurial intentions; in particular knowing non-family entrepreneurs and the approval of the close environment had a rather large influence (Linán & Santos, 2007). Also Mueller (2006) shows a positive association of social capital with entrepreneurial intentions, namely the likeliness of becoming a entrepreneur (Mueller, 2006).

Therefore, it is expected is that knowing an entrepreneur will influence entrepreneurial intentions positively, stating the second hypothesis:

Hypothesis 2: Knowing an entrepreneur is positively associated with entrepreneurial intentions.

Entrepreneurial self-efficacy

Before having entrepreneurial intentions, someone has to have confidence in his/her entrepreneurial skills. This can be considered the first moment of becoming self-employed and thus the influence of knowing an entrepreneur can be of value. The presence of role models can increase one's confidence and the ability to reduce ambiguity (Minniti, 2004). Also Aldrich has discussed the influence of personal networks to enhance entrepreneurial confidence by providing advice, support and examples (Aldrich, 1999). Knowing an entrepreneur is expected to be positively associated with entrepreneurial self-efficacy, making the third hypothesis:

Hypothesis 3: Knowing an entrepreneur is positively associated with entrepreneurial self-efficacy.

In the next section the data and method used in the empirical part of this thesis are discussed. Followed by the results of the empirical part by discussing the outcomes of the regression equations.

4. Data & Methods

To investigate the three aforementioned hypotheses, data were taken from the Global Entrepreneurship Monitor (GEM). The data used in this paper are self-reported and were collected in the year 2010. The GEM is the largest international data collection effort about entrepreneurship and entrepreneurial activity. In each country and in each year a random sample of at least 2,000 individuals is interviewed and asked a multitude of questions about his/her perceptions about entrepreneurship and engagement in entrepreneurial activity. Individuals living in the Netherlands, Belgium and the United Kingdom have been selected for the present purpose to account for differences across countries. No further selection on the respondents has been made which leads to a total sample of 6187 respondents (2359 out of the Netherlands, 1578 Belgium and 2250 United Kingdom) of which we can use 5755 cases due to some missing or invalid answers.

Using this sample, three different regression analyses were conducted in order to analyze the influence of knowing an entrepreneur on being involved in entrepreneurial activity. Each of the three models represents a different phase of entrepreneurial activity (one for each hypothesis: nascent entrepreneurship, entrepreneurial intentions, entrepreneurial self-efficacy), but includes the same set of independent variables. Specifically, the dependent variables are:

- *Nascent* - Being a nascent entrepreneur
- *Intentions* - Entrepreneurial intentions
- *Efficacy* - Entrepreneurial self-efficacy

Nascent is a binary variable which takes the value 1 if a someone is actively involved in a start-up effort and (s)he will be the owner (fully or partly) a business for which no wages have been paid yet, and takes the value 0 otherwise. Because this is a binary variable, logistic regression is used as the regression method of this paper. This has been done with SPSS, the same applies for the other models

To measure entrepreneurial intentions, the following question was asked in the GEM survey: "Are you, alone or with other, expecting to start a new business, including any type of self-employment, within the next three years?" If the respondents answered this with a "yes" the value 1 was given to *intentions*, otherwise a 0. Again, this is a binary variable so logistic regression was used.

For measuring entrepreneurial self-efficacy the variable *efficacy* is used. This variable takes the value 1 if a positive answer was given to the question: "Do you have the knowledge, skills and experience required to start a new business?", and the value 0 otherwise. As is the case for the other two dependent variables, logistic regression is used in the analysis as this is a binary variable.

In all three models the association of knowing an entrepreneur with the dependent variable is analyzed. Knowing an entrepreneur is measured with the variable *knowing entrepreneur*, a binary variable with the value 1 if respondents answered that they knew someone personally who has started a business in the past two years, and the value 0 otherwise.

Finally, in all three models, control variables were included. These control variables are gender (*gender*), age (*age*), household size (*household size*), education (*education*), household income (*household income*) and country (*country*). Then we get a logistic regression analysis based on the following equations (F() represents the cumulative logistic distribution function):

1st Model:

$$Prob(nascent=1) = F(beta1*knowing entrepreneur + beta2*gender + beta3*age + beta4*household size + beta5*education + beta6*household income + beta7*country)$$

2nd Model:

$$Prob(intentions=1) = F(beta1*knowing entrepreneur + beta2*gender + beta3*age + beta4*household size + beta5*education + beta6*household income + beta7*country)$$

3rd Model:

$$\text{Prob}(\text{efficacy}=1) = F(\text{beta1}*\text{knowing entrepreneur} + \text{beta2}*\text{gender} + \text{beta3}*\text{age} + \text{beta4}*\text{household size} + \text{beta5}*\text{education} + \text{beta6}*\text{household income} + \text{beta7}*\text{country})$$

Because the variables accounting for education (*education*), household income (*household income*) and country (*country*) are categorical variables, dummies have been created. For education (*education*), the reference category is no education (*none*) with dummies for the other categories: *secondary education*, *secondary degree* and *post secondary education*. The same is done for household income (*household income*) with the reference category lowest 33% tile (*lowest income*) and dummies: *middle income* and *upper income*. And lastly for the country of the respondents (*country*) the reference category is the Netherlands (*Netherlands*) with the dummies *Belgium* and *UK* included in the regression equations.

Thus, the logistic regression analysis will be based on the following equations:

1st Model:

$$\text{Prob}(\text{nascent}=1) = F(\text{beta1}*\text{knowing entrepreneur} + \text{beta2}*\text{gender} + \text{beta3}*\text{age} + \text{beta4}*\text{household size} + \text{beta5}*\text{secondary education} + \text{beta6}*\text{secondary degree} + \text{beta7}*\text{post secondary education} + \text{beta8}*\text{graduate education} + \text{beta9}*\text{middle income} + \text{beta10}*\text{upper income} + \text{beta11}*\text{Belgium} + \text{beta12}*\text{UK})$$

2nd Model:

$$\text{Prob}(\text{intentions}=1) = F(\text{beta1}*\text{knowing entrepreneur} + \text{beta2}*\text{gender} + \text{beta3}*\text{age} + \text{beta4}*\text{household size} + \text{beta5}*\text{secondary education} + \text{beta6}*\text{secondary degree} + \text{beta7}*\text{post secondary education} + \text{beta8}*\text{graduate education} + \text{beta9}*\text{middle income} + \text{beta10}*\text{upper income} + \text{beta11}*\text{Belgium} + \text{beta12}*\text{UK})$$

3rd Model:

$$\text{Prob}(\text{efficacy}=1) = F(\text{beta1}*\text{knowing entrepreneur} + \text{beta2}*\text{gender} + \text{beta3}*\text{age} + \text{beta4}*\text{household size} + \text{beta5}*\text{secondary education} + \text{beta6}*\text{secondary degree} + \text{beta7}*\text{post secondary education} + \text{beta8}*\text{graduate education} + \text{beta9}*\text{middle income} + \text{beta10}*\text{upper income} + \text{beta11}*\text{Belgium} + \text{beta12}*\text{UK})$$

Before discussing the results of the logistic regression analysis, a quick analysis of the correlations between the independent variables will be conducted, in order to facilitate a good interpretation of the regression coefficients. Some of the independent variables might be strongly correlated with each other and might cause spurious results (due to multicollinearity).

5. Results

In Table 1 is shown that approximately 3% of the respondents (between 18 and 64 years old) are nascent entrepreneurs. 7% of respondents have entrepreneurial intentions, which is more than those who are nascent entrepreneurship, as seen in the first model. Although there is only a limited amount of respondents who have entrepreneurial intentions, almost half of the people, namely 48% of the adults, claim to have entrepreneurial skills, knowledge, and experience. One third of the respondents knows an entrepreneur.

Looking at Table 2, the correlation matrix does not indicate any serious concerns for multicollinearity. The correlation between having secondary education and post secondary education of -0,643 is not very surprising as one category of this variable partially excludes the other.

The results of the binary logistic regression model are presented in Table 3. While Model 1 shows the results for nascent entrepreneurship (H1), Model 2 presents the results for entrepreneurial intentions (H2), and Model 3 for entrepreneurial self-efficacy (H3).

Hypothesis 1: Knowing an entrepreneur is positively associated with being a nascent entrepreneur.

Model 1 shows a highly significant ($p=0,000$) and positive association between knowing an entrepreneur and being a nascent entrepreneur with a coefficient of 0,949 (Table 3). The first hypothesis is fully supported, knowing an entrepreneur is positively associated with being a nascent entrepreneur. This result confirms the expectations for the first hypothesis based on previous research. It supports and confirms especially the studies that show a positive association between bridging social capital and nascent entrepreneurship (Arenius & Minniti, 2005) (Wagner & Sternberg, 2004)(Davidsson & Honig, 2003). And thus, the results of this first hypothesis supports the assumption that although Liao and Welsh (2005) found no differences of social capital between the general population and nascent entrepreneurs, there exists a positive association (Liao & Welsch, 2005).

Hypothesis 2: Knowing an entrepreneur is positively associated with entrepreneurial intentions.

Model 2 shows that knowing an entrepreneur is again highly significant ($p=0,000$) and is positively related to entrepreneurial intentions, here with a coefficient of 1,043 (Table 3). The second hypothesis is fully supported; knowing an entrepreneur is positively associated with entrepreneurial intentions. Although the conclusions of other research for this relation were a bit less strong than compared with the first hypothesis, also this is in line with the expectations stated in the theoretical framework. It confirms and adds to the existing literature of the influence of both bonding and bridging social capital on entrepreneurial intentions (Linán & Santos, 2007). And also adds to the study of Mueller where bonding social capital was found to be positively correlated with the likeliness of becoming an entrepreneur (Mueller, 2006).

Hypothesis 3: Knowing an entrepreneur is positively associated with entrepreneurial self-efficacy.

Model 3 shows that knowing an entrepreneur is significant ($p=0,000$) and positively correlated with entrepreneurial self-efficacy (Table 3). The coefficient is a little lower than in the first two models but comparable (0,781). Also the third hypothesis is fully supported; Knowing an entrepreneur is positively associated with entrepreneurial self-efficacy. This result was expected as other entrepreneurs can function as role models and/or might enhance the confidence with for example advise. This result is confirms the study of Minniti (2004) mentioned in the formulation of the hypothesis part (Minniti, 2004). The results of model 3 also strengthen Aldrich' discussing on the influence of personal networks to enhance entrepreneurial confidence by providing advice, support and examples (Aldrich, 1999).

6. Conclusion

In the introduction of this thesis the following research question has been formed:

How are an individual's social capital and his/her choice to become an entrepreneur related?

In this section I will answer this by looking at the results from both the literature and the empirical part. In order to give a profound answer to the research question, first previous research on the subject has been discussed in the theoretical framework, a literature study is conducted. Most articles show a positive relation of social capital and the choice to become an entrepreneur, social capital is measured both with strong social ties (family in business, household members are entrepreneurs, etc. (Mueller, 2006)) and with weak social ties (i.e. being member of a business network (Davidsson & Honig, 2003)).

This thesis identifies a gap in earlier literature and focuses on the relationship between social capital and some early stages of entrepreneurial activity, i.e. nascent entrepreneurship, entrepreneurial intentions, and entrepreneurial self-efficacy. All hypotheses have been fully supported, concluding that an individual's social capital in the form of knowing an entrepreneur increases the chance of becoming a nascent entrepreneur, having entrepreneurial intentions and having entrepreneurial self-efficacy.

Existing literature

In the existing literature there is not much research done on the relations between social capital and entrepreneurial intentions and entrepreneurial self-efficacy. This research fills the gap for a small part, but more research on this topic is needed, with various aspects of social capital. In particular the influence of bridging social capital on entrepreneurial intentions and entrepreneurial self-efficacy as the influence on nascent entrepreneurship is shown by Davidsson and Honig (2003). As explained in the introduction part of this thesis, this research tries to fill the gap between entrepreneurial intentions and perceptions and nascent entrepreneurship.

Another gap in the existing literature is the lack of information on the reasons why social capital has, if found, a positive influence on one's choice to become an entrepreneur. For example, knowing an entrepreneur enables individuals to get to know the possibilities and positive benefits of being self-employed, but on the other hand also the negative aspects. Further research on this matter is suggested in order to get a better understanding why social capital and knowing an entrepreneur in particular has a positive effect on being a nascent entrepreneur. Knowing successful and knowing unsuccessful entrepreneurs can for example be divided in two different independent variables. As discussed in the theoretical framework, a recommendation for further research is research with datasets with more countries, like the study of Arenius and Minniti (Arenius & Minniti, 2005). Because of the conflicting result of the study in the United states, I recommend more research with datasets which include data from the US (Liao & Welsch, 2005).

The results of the last study in the literature part of this thesis are very interesting because they show some differences in the association between bonding and bridging social capital and the perceived desirability and perceived feasibility of becoming an entrepreneur. (Linán & Santos, 2007) The dataset used is not as strong as it only includes students and only from one city. Therefore, research on the link between social capital and the perceived desirability and feasibility of becoming an entrepreneur with a bigger and a more diverse dataset (not only students from one city) is recommended.

Own research

A limitation for this study is the possibility of reverse causality regarding the first hypothesis; knowing an entrepreneur is positively associated with being a nascent entrepreneur. Being a nascent entrepreneur involves being actively trying to start a business, this may include networking and thus can influence knowing an entrepreneur. More networking means knowing more entrepreneurs which means a bigger chance of knowing an entrepreneur who started his/her business in the last two years.

In this thesis bonding social capital is used as a measure for social capital. As seen in the theoretical framework bridging social capital also has a positive association with being a nascent entrepreneur, so a suggestion for further research is using bridging social capital as the explanatory variables (Wagner & Sternberg, 2004). Especially on entrepreneurial intentions there hasn't been done much research on nascent entrepreneurship, but the results so far show positive correlations between entrepreneurial intentions and bonding social capital (Mueller, 2006). More research on bridging social capital and entrepreneurial intentions is thus suggested.

In this thesis the positive association between social capital and being a nascent entrepreneur is shown, as is seen in many other studies in the theoretical part of this study. Liao and Welsch (2005) are the only who showed no significant results on this association. Worth mentioning here is that Liao and Welsch (2005) only used strong social ties as the independent variables, so a suggestion for further research is investigation differences of weak social ties between the general population and nascent entrepreneurs.

Bibliography

- Abell, P., Crouchley, R., & Mills, C. (2001). Social Capital and Entrepreneurship in Great Britain. *Enterprise and Innovation Management Studies* , 2 (2), 119-144.
- Aldrich, H. (1999). *Organizations Evolving*. London Sage Publications.
- Anderson, A. R., & Jack, S. L. (2002). The articulation of social capital in entrepreneurial networks: a glue or a lubricant? *Entrepreneurship & Regional Development: An international Journal* , 14 (3), 193-210.
- Arenius, P., & Minniti, M. (2005). Perceptual Variables and Nascent Entrepreneurship. *Small Business Economics* , 24, 233-247.
- Beugelsdijk, S., & Van Schaik, T. (2005). Differences in social capital between 54 Western European regions. *Regional Studies* , 1053-1064.
- Burt, R. (1992). *Structural Holes*. Cambridge: Harvard University Press.
- Casson, M., & Della Giusta, M. (2007). Entrepreneurship and Social Capital. *International Small Business Journal* , 23 (3), 220-244.
- Davidsson, P. (2006). Nascent entrepreneurship: empirical studies and developments. *Foundations and Trends in Entrepreneurship* , 1-76.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing* , 18, 301-331.
- De Carolis, D. M., & Saporito, P. (2006). Social Capital, Cognition, and Entrepreneurial Opportunities: A Theoretical Framework. *Entrepreneurship Theory and Practice* , 30 (1), 41-56.
- Djankov, S., Qian, Y., Roland, G., & Zhuravskaya, E. (2006). Who Are China's Entrepreneurs? *The American Economic Review* , 96 (2), 348-352.
- Liao, J., & Welsch, H. (2005). Roles of Social Capital in Venture Creation: Key Dimensions and Research Implications. *Journal of Small Business Management* , 43 (4), 345-362.
- Linán, F., & Santos, F. J. (2007). Does Social Capital Affect Entrepreneurial Intentions? *International Atlantic Economic Society* , 13, 443-453.
- Minniti, M. (2004). Entrepreneurial alertness and asymmetric information. *Journal of Business Venturing* , 19, 637-658.
- Mueller, P. (2006). Entrepreneurship in the Region: Breeding Ground for Nascent Entrepreneurs? *Small Business Economics* , 27, 41-58.
- Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *Academy of Management Review* , 242-266.

Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., et al. (2005). Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998-2003. *Small Business Economics* , 205-231.

Stam, W., Arzlanian, S., & Elfring, T. (2013). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing* .

Wagner, J., & Sternberg, R. (2004). Start-up activities, individual characteristics ,and the regional milieu: Lessons for entrepreneurship support policies from German micro data. *The Annals of Regional Science* , 38, 219-240.

Westlund, H., & Bolton, R. (2003). Local Social Capital and Entrepreneurship. *Small Business Economics* , 21, 77-113.

Appendix

Table 1
Descriptive statistics

	Minimum	Maximum	Mean
nascent	0	1	,03
intentions	0	1	,07
efficacy	0	1	,48
knowing entrepreneur	0	1	,33
gender (1=female)	0	1	1,50
age	18	64	41,12
household size	1	34	2,92
secondary education ¹	0	1	,10
secondary degree ¹	0	1	,40
post secondary education ¹	0	1	,38
graduate education ¹	0	1	,05
middle income ²	0	1	,15
upper income ²	0	1	,50
Belgium ³	0	1	,25
UK ³	0	1	,36

¹Against the reference category: no education

²Against the reference category: lowest income

³Against the reference category: Netherlands

Table 2
Correlations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Knowing entrepreneur (1)	1									
gender (1=female)	-,103**	1								
age (3)	-,147**	,007	1							
Household size (4)	,033**	,050**	-,227**	1						
secondary education ¹ (5)	-,074**	,020	,013	,008	1					
secondary degree ¹ (6)	-,053**	,011	-,100**	,033**	-,272**	1				
post secondary education ¹ (7)	,107**	,005	,024	-,005	-,260**	-,643**	1			
graduate education ¹ (8)	,058**	-,039**	,001	,014	-,076**	-,189**	-,181**	1		
middle income ² (9)	-,026*	,011	,033*	-,043**	,004	,115**	-,098**	-,040**	1	
upper income ² (10)	,115**	-,097**	,003	,128**	-,101**	-,096**	,205**	,092**	-,431**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

¹Against the reference category: no education

²Against the reference category: lowest income

Table 3
Binary logistic regression model

Dependent variable	Model 1		Model 2		Model 3	
	nascent		intentions		efficacy	
Independent variables						
<i>Social capital</i>						
knowing entrepreneur	,949***	(,154)	1,043***	(,106)	,781***	(,060)
<i>Control variables</i>						
gender (1=female)	-,570***	(,153)	-,575***	(,107)	-,759***	(,056)
age	-,005	(,006)	-,033***	(,004)	,012***	(,002)
household size	,005	(,052)	-,086*	(,038)	,022	(,020)
secondary education ¹	1,011	(,541)	-,194	(,318)	,258	(,146)
secondary degree ¹	,816	(,496)	,068	(,264)	,496***	(,127)
post secondary education ¹	1,282**	(,492)	,148	(,263)	,776***	(,127)
graduate education ¹	1,335*	(,564)	,396	(,319)	,834***	(,174)
middle income ²	-,421	(,227)	-,292	(,189)	-,105	(,088)
upper income ²	-,692***	(,168)	,152	(,119)	,246***	(,064)
Belgium ³	-,516*	(,210)	,414**	(,132)	,051	(,074)
UK ³	-,288	(,185)	,028	(,133)	,367***	(,072)
Constant	-3,215***	(,622)	-,916*	(,370)	-,616**	(,197)
Model R ²	,064		,106		,130	
N	6068		5960		5920	

Standard errors are in parentheses.

* P < .05.

** P < .01.

*** P < .001.

¹Against the reference category: no education

²Against the reference category: lowest income

³Against the reference category: Netherlands