Summary

With a little help from my friends

A study about the development of the social network of student entrepreneurs during and after an educational venture creation program.

Over the last years the popularity of entrepreneurship among students has risen substantially. More and more students at universities of applied sciences view starting their own business as a serious alternative to working for a large corporate. Several universities of applied sciences therefore offer education in the field of entrepreneurship and also allow students to start their own business during their studies (Mwasalwiba, 2010; Vanevenhoven & Drago, 2015; Lackéus M. & Williams Middleton K., 2015). In the Netherlands, the services of the Young Entrepreneurship Foundation are often used in this field of education and the companies that have started are often liquidated within a year, immediately after the program has ended. In these companies, therefore, the trade of products is the main topic of interest. This form of education is regularly applied in the first or second year of a bachelor's degree in the economic sector (Hoogendoorn et al., 2011). Within these programs, teamwork is often the central point of interest and not the start of your own company.

More and more universities of applied sciences allow students to start their business during venture creation programs, in the third and fourth year of their bachelor education (Stam, 2014). In these programs companies are started and registered with the Chamber of Commerce. These companies are often related to a service, food and drink, clothing & accessories, trade, and the development of a product. These companies are also often wound up after the program. Given the fact that this was very frustrating for some students and also led to early school leaving, universities of applied sciences started looking for methods to guide students in combining their own company and obtaining a bachelor's degree. In 2017, this even led to the drafting of a memorandum of understanding by the Association of Universities of Applied Sciences and the Dutch Government initiative Start-up Delta to stimulate the start of companies in universities of applied sciences (de Graaf & Constantijn van Oranje, 2017).

Since activating your social network to get support for your company is one of the most important success factors when starting your own business (e.g. Larson & Starr, 1993; Elfring and Hulsing, 2003; Newbert et al., 2013) and students are still fully engaged in the development of their business network in particular, this topic seemed to lend itself perfectly to doing research. Extensive research into the
literature in this area yielded a number of issues that have been underexplored to date and were therefore worth investigating. Stuart & Sorensen (2007), in their exploration of the gaps in the literature on social networks, in the context of starting their own business, indicated that there was a particular need for longitudinal studies on the development of networks and that there still was a lot of uncertainty about the difference between the social network of the entrepreneur and that of a company with various employees. Several researchers confirmed this analysis (e.g. Newbert et al, 2013; Lamine et al., 2015; Lans, Blok & Gullikers, 2015). This led to the following problem definition for this dissertation:

*How do student entrepreneurs develop their network over time in favour of the new ventures they create and how do they motivate their employees to use their social capital in favour of the company they work in?*

In order to further investigate this problem, three separate sub-questions have been formulated which have subsequently been answered using quantitative and qualitative methods.

**Theme 1: A network of external specialists**

Entrepreneurship connects networks that had not previously been connected (Schumpeter, 1934, Granovetttet, 1973; Burt, 1992). Having connections outside the circle of family and friends can mean an introduction to new knowledge and that other sources, for example in the field of financing, are made accessible. Companies that structurally occupy strategic positions with which they reduce the gap with other industries appear to have better access to new knowledge in practice, identify more opportunities in the market and enjoy a higher reputation in the outside world (Stam, 2008). The operation of this theory has been extensively described by Burt (1992) in his work on structural holes in a network. What consequences this has for practice is not always clear, which is why the following question was formulated:

*Does the introduction to a network of specialists give student entrepreneurs an advantage in the development of their company compared to student entrepreneurs who are not introduced to this network?*

**Theme 2: The development of a social network over a longer period of time**

Researchers recently made the following statement: "What remains a challenge in studies concerning students starting an enterprise during an educational program is the dependency on research based on
a snapshot, instead of data that is available over a longer period of time, even after the end of their school education, collected by the researcher himself" (Lans et al., 2015: 460). Given the fact that we had the opportunity to follow student entrepreneurs for a longer period of time, the following question was formulated:

*How do student entrepreneurs develop the social network of their company in the making so that their company can eventually grow into a sustainable company?*

**Theme 3: Establishing the social network of a company and the role of the employees in this**

In many studies the personal network of the entrepreneur is taken as the starting point for drawing conclusions about network development. At a flourishing company, more and more employees start to work in the course of time. What does this mean for the social network of the company? Are employees using their social capital for the company? If so, under which conditions does this happen and what is the role of the entrepreneur in this process? (Stuart & Sorensen, 2007). These questions led to the formulation of the following research question:

*How do former student entrepreneurs convince their employees to use their social capital in favour of the company?*

**Research design**

The research was done in the academic years 2009-2010 and 2010-2011. During this period 495 students were enrolled in a venture creation program at the University of Applied Sciences in Amsterdam and 165 companies were started and registered with the Chamber of Commerce. On 1 June 2012, 17 of these 165 companies were still active. These 17 companies were approached for a follow-up study and were interviewed annually until 1 June 2015, when only 7 companies were still up and running. In 2017, two of these companies and a third company of a former student who had also started a business during his study were examined in the context of the use of the social capital of their employees.

Various research methods were used during this research. The 495 students were subjected to quantitative research via a survey, in which questions were asked to map out their entrepreneurial competencies and to find out whether, for example, there were entrepreneurs in their family and whether or not they had gained any work experience. The questionnaire was based on a previously validated list from the study of Hoogendoorn et al. (2011). The students completed the questionnaire at
the beginning of the venture creation program and at the end of the program, so that any effects of the program on the development of the entrepreneurial competences could be measured. The results of this survey were processed in the software program Stata and used for, among other things, making regression analyses.

During the program, a unique experiment was carried out in which 50% of the companies were brought into contact with a network of external specialists and the other companies did not see these people. This was to measure whether the use of an external network of specialists unknown to the students had an effect on the results of the companies concerned.

At the end of the venture creation program of six months, the students were also subjected to qualitative research by answering a structured questionnaire asking for the team composition of the company, the mutual cooperation during the period, the achieved results, in terms of turnover, costs, investments, etc. and the people with whom they worked together during this period for their own company. These questionnaires were modulated to previous questionnaires used in the research of Davidson and Honig (2003) and Bhagavatula et al. (2010). In total, all 165 companies from this period were interviewed (approximately 5000 minutes of interviews). The results of the interviews were processed directly in Excel by the researcher and a student assistant and later included in the software program UCINET to make statements about the composition of the network (the size of the network, the average strength of a connection (strong, weak ties) and the density of the network (just family and friends or also external business partners).

The 17 companies that continued after the venture creation program were also subjected to a quantitative study in which the questions about the results of the company were repeated and the changes in the network were mapped. We also asked about the way in which certain contacts were approached and how the relationship worked. These interviews were processed on site in Excel sheets or were recorded and later worked out for the dissertation. Every year the former student entrepreneurs were interviewed and in addition press material about the companies was collected. This material ensured that the researcher was able to gain insight into the ins and outs of the companies via triangular measurements (Yin, 1984; Zott & Huy, 2007). The students were also followed if they had to present themselves during business competitions and meetings were attended because of, for example, a move to a new location or reaching a certain milestone. The conclusions of this research were also discussed in a focus group of four entrepreneurs out of this group to see whether they recognized themselves in the conclusions drawn.
In 2017, three companies of (former) students with between 20-100 employees participated in qualitative research into the contribution that employees make to the social network of the company and the influence that the entrepreneur exercises on the employees' behaviour in this area. In total, 12 people (the entrepreneur and 3 employees per company) were interviewed for this study on the basis of a semi-structured interview (385 minutes of material in total). All interviews were recorded and later elaborated via a list of subjects on the basis of which elements from the interviews were brought together to arrive at an overview of related statements. The software program MaxQda was used for this.

Main results

The empirical research has yielded some interesting results. These will now be briefly discussed per research theme.

Theme 1: A network of external specialists

During the venture creation program 50% of the companies were introduced to external specialists in the field of marketing and financing or another expertise of importance for the firm in question. The analysis of the effect of this interference in the business operations of the students in question led to the conclusion that the companies in question did not perform significantly better than the companies that were not introduced to this network. The external experts were interviewed afterwards about the contacts with the students. As the main reason for external professionals not to use their resources for the companies concerned, it was stated that most of the students in question did not know whether they would continue with their business after the entrepreneurship program ended. The effect of the use of these so-called 'structural holes' in the network was negligible due to the lack of commitment of the students because their first priority was finishing their bachelor education.

Theme 2: The development of a social network over a longer period of time

During the entrepreneurship program and several years afterwards, students were followed and interviewed about the development of their network. This research showed that during the program the role of family and friends was very important. They provided services below the prevailing market price by, for example, cooperating voluntarily in the company, providing free business space, acting as a launching customer, helping to finance the first working capital and providing emotional support. Companies that continued after the entrepreneurship program had to extend further to new business
contacts and increase their brand awareness by realizing free publicity and/or winning prizes. After becoming acquainted with the relevant parties, they also had to bind them by making follow-up appointments. The student entrepreneurs who were not able to take this step towards the market had to liquidate their company over time. The student entrepreneurs who managed to set up a sustainable company have benefited from, among other matters, the goodwill of companies towards student entrepreneurs, have had no trouble with asking for help and because of the way they had put their company on the market won over the trust of customers and suppliers.

The University of Applied Sciences has in many cases been able to play a mediating role (brokerage) for the students by introducing them to stakeholders from their own network, mostly the municipality, banks and consultancy companies. This has helped a number of student entrepreneurs. The university has also acted as launching customer in various cases. In these cases, the downside of this involvement also came to the fore, because in these cases student entrepreneurs were unable to extend themselves to new customers as they were too busy running their business. This emphasizes the other side of being embedded in a certain network and focusing only on the operational side of the business.

**Theme 3: Establishing the social network of a company and the role of the employees in this**

This study showed that employees of entrepreneurial companies use their social capital in favour of the company without question. In all cases we met an enthusiastic population of young people (often their first contact with the business community) who were inspired by the entrepreneurs in question and felt at home in the transparent and safe environment of the company. The fact that there was a joint responsibility for the result and that mistakes were simply accepted, made employees happy to search in their network for new employees, potential customers or knowledge in the form of new developments in the market. In all these efforts, social media such as Facebook, Twitter, LinkedIn and Instagram were also used to achieve these goals.

**Contributions from the research**

This research has contributed to the literature in the field of entrepreneurship, social networks, entrepreneurship education and Human Resource management.

Firstly, recent studies have shown that it is important for an entrepreneur to develop a social network that consists of family, friends and business relationships. This network is important for starting
entrepreneurs in discovering opportunities in the market, gaining access to investors and acquiring legitimacy (Elfring & Hulsing, 2003; Newbert et al., 2013; Rasmussen et al., 2015). However, there is a shortage of research on the development of networks over a longer period of time. This dissertation thus contributes to solving this shortage and in particular provides insight in the development of the social network of student entrepreneurs who still have to start developing their business network. This has been done by developing several new datasets over a period of five years.

Secondly, this research contributes to the understanding of networking by carrying out a unique experiment in the field of the structural hole theory (Burt, 1992). The importance of strong motivation to convince an external party to commit resources is once more emphasized by this research.

Thirdly, this research contributes to the relatively new research field of entrepreneurship education with regard to programs in which students are encouraged to start their own company (Lee & Jones, 2008; Mwasalwiba, 2010; Moberg, 2014; Lackéus et al., 2015; Rasmussen et al. 2015). This research shows that it is of great importance for universities and universities of applied sciences to consider the consequences of stimulating students to start up their own companies during their studies (see also remarks in the paragraph about practical implications).

Fourth, this research contributes to the human resource literature and the literature in the field of social networks, due to the fact that the deployment of the social network of employees for the company is discussed. This study shows that (former) student entrepreneurs are able to create a business climate in which employees are fully motivated to use their social capital for the benefit of the company. It also raises the question if the entrepreneurs are aware of the possible contribution the social capital of their employees can provide to their company. The use of social media in favour of the company also appears to help the company in achieving new employees, customers and new insights. In this dissertation, the question of Stuart & Sorensen (2007) about the composition of the social network of a company as well as the network of the entrepreneur and his employees is also answered.

**Practical implications**

In practical terms, this dissertation provides suggestions for entrepreneurship education at universities of applied sciences to also look at the preconditions associated with this stimulus in the case of education where students are encouraged to start their own business. Where universities and
universities of applied sciences have already built up an entire infrastructure to exploit inventions based on patents through Technology Transfer Offices and incubators, students who market non-patented findings are often left to their own device. This leads in some cases to the premature departure from the university or university of applied sciences. Offering students the opportunity to graduate on their own company or to tailor their study curriculum to their needs, for example by the possibility of taking examinations at other times, could be steps in the right direction.

Building a social network also deserves extra attention in education at universities of applied sciences and universities. In this dissertation a number of cases are discussed in which the construction of a social network plays a role. These cases can be shared with students for illustration purposes and underline the importance of a social network in general and for entrepreneurs in particular.

Conclusion

The reason for this dissertation was the lack of clarity about building a social network by student entrepreneurs and the factors that play a role in this. During the period of this research (2009-2018) a unique dataset were developed on which the conclusions of this research are based. Through this research, the insight into how student entrepreneurs build up their social network and what role family, friends and external relations play in this process increased. Several hypotheses have been included in the dissertation that can be further tested in practice and give reasons for further research. This research once again made it clear that entrepreneurship is embedded in a web of social relations and networks and that entrepreneurs who are unable to enter into lasting contacts with previously unknown business relationships cannot survive in the long term.

Oh, I get by with a little help from my friends
Mm, gonna try with a little help from my friends
Oh, I get high with a little help from my friends
Yes, I get by with a little help from my friends
With a little help from my friends

(1967, Lennon & McCartney)