Trends of Venture Capital Internationalisation

The impact of a technology ecosystem on early stage crossborder investments



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Abstract

The venture capital industry has grown rapidly in the last decades to become an important source of financing for entrepreneurs. While research suggests that venture capital investments are more likely to be successful if done in close geographic proximity to the venture capital firm, there is clearly a trend of increasing international investments. This thesis looks at the venture capital community in New York to understand venture capital as a part of the development of New York's technology cluster, and to understand venture capitalists view on cross-border investments.

By applying the ecosystem resource perspective model, the study finds that venture capitalists have a strong influence on the technology ecosystem in New York, due to its large financial sector. The study also finds that ecosystem sub-sectors have developed by applying technology to the dominating business sectors in New York.

The study also identifies a "reverse internationalisation", whereby companies founded abroad relocate to New York at earlier stages in their development, as the growth of the New York ecosystem has increased its attractiveness to foreign founded companies. While the empirical results confirm an increasing interest for cross-border investing, the increased supply of early stage investment opportunities (U.S. and foreign founded) creates a strong incentive for a local investment strategy. Further, the study finds that venture capitalists mitigate the risks associated with cross-border investments by establishing funds in specific regions of interest, and by coinvesting with local partners.

Keywords

Ecosystem, venture capital, cross-border investments, internationalisation

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1. Introduction

1.1 Background

"With almost \$60 billion deployed to start-up companies in 2015 [in the U.S.], the venture capital ecosystem is strong and healthy, and committed to helping entrepreneurs get their breakthrough ideas off the ground and into the marketplace" (Bobby Franklin, President and CEO, NVCA).

The venture capital industry has grown rapidly in size in the last decades and has become more important as a source of financing for entrepreneurs with promising, high-growth businesses (Hsu, 2007). In 2014, \$86.7 billion of venture capital was invested globally, the highest annual investment amount since 2000 (EY, 2015). An increased amount of venture capital is allocated to late stage ventures and according to EY (2015) these investments have almost doubled compared to historical values. The venture capital industry was in 2014 mainly driven by large rounds of investments in technology consumer service providers such as Uber Technologies, Snapchat, Instacart and Flipkart.

The venture capital industry is geographically biased towards the U.S., which represents approximately 60% of total amount invested in 2014 compared to 12% for the European market (EY, 2015). European venture capital is also increasingly allocated to late stage ventures. According to Riksrevisionen (2014) approximately 75% of private equity (consisting of venture capital and buy-outs) in Sweden has been allocated to mature companies, clearly illustrating a shift from early-stage investments to buy-outs in the last decade. The amount of venture capital invested in early-stage companies has decreased significantly since the 1990s (Riksrevisionen, 2014).

A fundamental aspect of venture capital investment strategy is risk and return considerations. A narrow distance between the venture capitalist and the company is important for success in venture capital investing (Cumming and Dai, 2011; Devigne et al., 2013; Manigart et al., 2011) and investments in both the North America and Western Europe are highly concentrated to specific geographical regions (Megginson, 2004).

However, with increased globalisation, is it reasonable for venture capitalists to limit their selection of investment opportunities on the basis of geography? Porter (2000) argues that factors such as resources, technology and capital can be effectively sourced and allocated in global markets, suggesting that location is becoming less important. Other factors have contributed to increased internationalisation of venture capital investments – including increased competition between

venture capital firms as the industry has matured, pushing firms to seek opportunities elsewhere (Devigne et al., 2013) and, in the European Union, by policies to increase economic integration within the Union (Alhorr et al., 2008).

An important aspect to take into consideration when trying to understand venture capital investments is the technology clusters, as venture capital investments are typically concentrated geographically to regions with developed technology clusters. The most famous of these clusters is, of course, the Silicon Valley, being the home of several generations of famous technology companies. The New York technology cluster (at times referred to as the "Silicon Alley"), is also large and vibrant, and the only major venture capital hub in the U.S. that grew its share of venture capital technology investments over the past three years (CB Insights, 2013).

1.2 Problem discussion

There is an inherent conflict in the continued internationalisation of venture capital investing. On the one hand, research suggests that venture capital investments are more likely to be successful if done in close geographic proximity to the venture capital firm making the investment (Cumming and Dai, 2011; Devigne et al., 2013; Gupta et al., 1992; Manigart et al., 2011) and that investments typically take place in geographically concentrated technology clusters. On the other hand, there is clearly a trend of increasing international investments. This has been acknowledged in numerous studies, including one by Deloitte and the National Venture Capital Association (2009), which concluded that a majority (52%) of the 700 venture capital firms surveyed invests cross-border. These recognised trends suggest that previous researchers, (Cumming and Dai, 2011; Devigne et al., 2013; Gupta et al., 1992; Manigart et al., 2011) have an outdated view of venture capitalists and investment theory in current practice.

Researchers in this field suggest further research of cross-border venture capital investments (Tarrade, 2012) business ecosystems and relationships (Weber and Hine, 2015) and relative importance of venture capitalists (Zacharakis, Shepherd and Coombs, 2003). There is limited previous research to be found about the relationship between ecosystem development and early stage venture capital investment strategies. This provides a gap in our collective understanding of how development of technology business ecosystems impacts venture capitalists' cross-border investment thesis.

New York City is the home of the U.S.'s second largest technology cluster, including a large venture capital community. Although smaller than Silicon Valley, the current momentum in venture capital investments (CB Insights, 2013) and the relative closeness to Europe compared to Silicon Valley, makes New York a very suitable scene for research to understand the development

of a technology cluster, and the evolution of cross-border investing. By looking at the development of the New York ecosystem, including the technology firms and its venture capital investors it might be possible to recognise and understand internationalisation trends of the New York venture capital market.

1.3 Purpose and research questions

Based on the problem discussion above, I will empirically research the venture capital community in New York, to understand venture capital as a part of the development of the New York technology cluster, and to understand how New York venture capitalists look at cross-border investments.

The following research questions will be addressed:

- Which resources have driven the development of the technology ecosystem in New York?
 - o From the ecosystem resources perspective presented by Bahrami and Evans (1995), what is the relationship between the technology cluster and local venture capitalists in New York?
- What is the view among early stage venture capitalists in New York on cross-border investments?
 - How has traditional investment strategy, which favours geographic closeness, influenced cross-border investments?

Research is conducted in New York because of its vibrant venture capital market and growing start-up community and technology ecosystem. The technology ecosystem in New York includes entrepreneurs, technology companies, venture capitalists, institutional agencies, universities, incubators, accelerator programs and related networks.

International venture capital is in this thesis based on the definition by Wright, Pruthi and Lockett (2005) and involves cross-border inflows into venture capital funds and outflows of funds to investments in other countries.

Early stage venture capital investments are defined in this thesis by the following investment ranges presented by Rose (2014):

Angel funding: < \$1 million
Seed funding: < \$1.5 million
Series A funding: < \$10 million
Growth capital: > \$10-\$20 million

1.4 Disposition

The introducing chapter of this thesis presents relevant background information followed by a problem discussion that leads to the purpose and research questions. The second chapter contains an overview of fund raising in order to further define the chosen area of this thesis. The third chapter, "theoretical framework", contains an overview of previous research on the topic. This is followed by the fourth chapter, in which the chosen research method is presented. The fifth chapter contains the empirical data and in the sixth chapter the results are analysed and presented, linking the problem discussion and theoretical framework to the empirical results. The final chapter contains a conclusion as well as a discussion on areas of future research.

2. Research context

2.1 An overview of fundraising

Venture capital firms usually syndicate with others to provide high growth start-ups with resources to support them in growing their business and gain from potential success (Alexy et al., 2011). The investment process is usually divided into sequential steps including (1) deal origination, (2) deal screening, (3) deal evaluation, (4) deal structuring and (5) post investment activities (Tyebjee and Bruno, 1984).

The initial capital is usually cash provided by the entrepreneur himself. Due to increased technology and lower costs, there are nowadays no incentives for external investors to invest in the pure idea itself, they usually want to see a product and some traction of the company. The capital provided by the entrepreneur is referred to as founder's equity, which will typically be repaid by the time of a successful exit (Rose, 2014).

The first round of external capital does normally come from family and friends in the form of a personal loan or a convertible note, which guarantees that the investor will in the future be able to convert the initial loan into an equivalent of cash in order to buy stock in the company (Rose, 2014). Then the entrepreneur usually begins what is normally referred to as fundraising. When investing, the venture capitalist receives a certain number of newly created shares in the company for cash. The implied value of the company is determined by the number of shares outstanding times the price per share. (Heughebaert and Manigart, 2012)

The venture capital firm, referred to as general partner, invests on behalf of the limited partner, usually pension funds or high net worth individuals. According to Megginson (2004) the venture capitalist is responsible for (1) seeking out investment opportunities and negotiate terms, (2) monitoring the portfolio performance and provide management support and if needed, additional capital, (3) finding an exit opportunity and consequently liquidate the investments of the portfolio, and (4) distribute the realized cash returns to the limited partners and then terminate the fund. In return, the general partner receives a percentage of the realised returns and an annual fee of the total committed capital.

The valuation in venture capital investing is a negotiation between the two parties and often impacted by characteristics of the venture capital firm (Cumming and Dai, 2011). This is further developed by Hsu (2004), who identifies a pattern where entrepreneurs accept lower valuation from more reputable venture capital investors. Heughebaert and Manigart (2012), argues that

bargaining power of the venture capitalists is reflected in the valuation, suggesting that universities and governmental venture capital funds negotiate lower valuations than independent venture capital firms.

An angel investment is capital provided by private investors and seed financing is the first institutional capital a start-up can receive. The next round of financing is venture capital backed Series A, however, according to Rose (2014) between 90% and 95% of the companies that receive angel funding never get funding from institutional venture capital funds. The following stage of fundraising is growth capital by late-stage venture capital funds. Then valuations will be much higher and these funds usually have a smaller stake than investors from earlier rounds. The exit of a company is either private or public and most acquisitions in the U.S occurs after Series A or B at valuations between \$30M and \$50M (Rose, 2014).

3. Theoretical framework

In this chapter previous research on the topic will be presented. The findings will in a later chapter be interpreted and analysed with the empirical data.

In order to establish a framework for answering the research questions, literature must be interpreted. Previous research that is of importance for this thesis is presented below. The chapter includes the ecosystem model and factors besides the company itself that makes some countries more attractive than others for foreign venture capitalists, followed by a summery on traditional investment strategy and lastly theory on valuation and exit strategies.

3.1 Ecosystem model

The surrounding ecosystem is of importance for development of a company and according to Mathews (1997), almost all industries are built upon ecosystems. Moore (1996) defines ecosystem as "...a foundation of interacting organizations and individuals – the organisms of the business world". The ecosystem contributes with value by creating entrepreneurial momentum and as the ecosystem develops, the number of start-ups increases (Lucas, 1993). On the contrary, regions that are not entrepreneurial tend to stay that way (Zacharakis, Shepherd and Coombs, 2003). Consequently, the ecosystem influences both the type of entrepreneurship and development that occur in a specific geographic region (Zacharakis, Shepherd and Coombs, 2003).

There are several examples of the infrastructure of a business ecosystem. According to Bahrami and Evans (1995) the ecosystem model is built upon three main resources; (1) knowledge, (2) financial support and (3) technical skills and has been used explanatory on the development of the U.S. technology sector in Silicon Valley (Appendix 1). This interpretation is in line with the general perspective on environmental ecosystems presented by Mathews (1997). Arthur (1990), on the other hand presents a model based on self-reinforcing expertise. The difference in technical progress is due to the fact that regions with innovative activity develop resources that become critical in going forward.

The ecosystem supports certain entrepreneurial activity, but it also limits the development of other sub-sectors within that region. This leads to the specific sector focus of an ecosystem and differences in how technology ecosystem develops across regions. This is referred to as institution theory and isomorphic processes (Zacharakis, Shepherd and Coombs, 2003). Isomorphic pressure forces companies within a population to quickly imitate others to gain legitimacy (DiMaggio and Powell, 1983). It seems to limit the focus to the entrepreneurs in the development of an ecosystem. The isomorphic model focuses on what Bahrami and Evans (1995) refer to as "technical skill".

There are other important resources that impact an ecosystem. Venture capitalists can influence the type of entrepreneurship that occurs in an ecosystem by being experts in a certain sub-sector and consequently invest according to preferences (Zacharakis, Shepherd and Coombs, 2003).

3.2 Domestic conditions for investments by foreign venture capitalists

There is a trend of increasing inflows of cross-border venture capital in Europe and Asia to newly raised funds, while levels remain low in the U.S. (Wright, Pruthi and Lockett, 2005). Other factors than company specifics impact the investment decision and risk / return trade-off, and is presented in this section. Domestic conditions that makes a country attractive for cross-border venture capital investments include institutional environment, equity capital markets, country growth as well as social and cultural factors. The institutional environment and equity capital markets seem to be the most important for cross-border venture capital investments and will therefore be covered more indepth.

3.2.1 Institutional environment

Guler and Guillén (2010b) argue that local institutions strongly impact new market entry by foreign venture capitalists. By improving legal, financial, scientific and political institutional infrastructures, the local institution's ability to attract foreign venture capital increases. This section focuses on legal institutions since it in previous research is described as an important aspect of cross-border investment decisions (Guler and Guillén, 2010b).

Venture capitalists aim to invest in foreign markets with legal environments that protect the investor's rights. Therefore, legal institutions become important to the development of the domestic venture capital industry. Most of the legal contracts regarding venture capital investments have been developed in the U.S. and accordingly to suit the U.S. market. Issues with contractual agreements are common since domestic terms are seldom applicable and transferable to the rest of the world (Bottazzi, Da Rin and Hellman, 2009).

When investing in countries with legal environments that offer low protection of the foreign investor's rights, the venture capitalist usually requires a larger amount of common stocks and debt instead of convertible preferred stock (Bottazzi, Da Rin and Hellman, 2009). This is in order to get more influence on the board of directors and increasing the size of the investor's equity. When U.S. venture capitalists invest in countries with English common-law systems (Megginson, 2004 (Appendix 2)), they usually accept lower levels of control since they through convertible preferred equity achieve minority stakeholder protection (Lerner and Schoar, 2005). Therefore the venture capitalist can distribute the investments over a larger number of companies and hence diversify

portfolio risk (Bottazzi, Da Rin and Hellman, 2009). However, Guler and Guillén (2010b) argue that with increased cross-border experience, venture capital firms learn how they can mitigate legal difficulties. Investing with a local partner is according to Guler and Guillén (2010a) important both from a due diligence and a holding perspective.

Besides institutional environment, it is of importance to have venture capital partners in foreign markets when making cross-border investments (Guler and Guillén, 2010a). When gaining experience in new markets, the foreign investor's increased knowledge of the particular region's legal and institutional environment, as well as international network, makes cross-border investing easier (Schertler and Tykvova 2011).

3.2.2 Equity markets

Schertler and Tykvova (2011) demonstrates that international venture capitalists find countries with high stock market capitalization attractive for cross-border investments and also that high market capitalization in the venture capitalist's country of origin favours the conditions of raising funds from their investors (the limited partners). Examining the market capitalization ratios over a 24-year period, comparing the U.S., EU and an estimate of the world, shows that the U.S. has the highest ratio, which to some extent explains the large U.S. venture capital market and favourable domestic fundraising conditions from limited partners (Appendix 3).

Further, changes in the number of publicly traded companies and stock market turnover can serve as indicators for exit opportunities (Guler and Guillén, 2010b). The researchers describe that this is because market capitalization correlates with the two exit options of a venture capital investment; an initial public offering (IPO) or a trade sale, in which the limited partners receive their proceeds. However, the conclusion is both broad and general since there are a wide variety of exit values, and also trends of exits can differ across regions. Wright, Pruthi and Lockett (2005), make an important clarification by explaining that high levels of venture capital activity do not always lead to more IPOs. This is because venture capital includes both early and late stage investments and IPOs are a result of only the later (Jeng and Wells, 2000).

Nevertheless, the institutional framework is considered to be more important with regards to inflow of cross-border venture capital. Megginson (2004) agrees with the importance of having sufficient equity capital markets but concludes that market capitalization growth is not a significant determinant of venture capital. Institutional (and in particular regulatory) framework on the other hand can have very strong impact on investment decisions.

3.3 Venture capital investment strategies

Even though the venture capital industry is growing in terms of both number of investments and amount (Megginson, 2004) and cross-border investments have increased significantly since the mid-1990s (Wright, Pruthi and Lockett, 2005; Tarrade, 2012), domestic investors are according to previous research (Cumming and Dai, 2011; Devigne et al., 2013; Manigart et al., 2011) still considered more suitable for early-stage investments. However, as venture capital funds increase in size, diversification of the portfolio as well as investing in later rounds of funding at higher valuations becomes more important. Arguments for traditional investment theory by previous researchers will be presented in this section.

In terms of investment stage and geographic location, previous research concludes that domestic venture capital investors are better at supporting early-stage companies. This is both due to a higher overall risk of investing at earlier stages and that these companies are facing greater business risk than more mature companies and therefore needs more support from the venture capitalists than later stage ventures does (Devigne et al., 2013; Gupta et al., 1992). This is based on agency and transaction cost theory, implying that geographic remoteness and cultural distance between the venture capitalist and the company makes it difficult to gain full advantage of the management advisory support provided by the venture capitalist (Tarrade, 2012). That could from an investment return perspective be harmful for the venture capitalist in case the company is not as successful as expected.

The venture capitalist provides active management support of the company, gives strategic advices, shares business knowledge and makes valuable introductions to relevant contacts (Tarrade, 2012). Domestic venture capital investors therefore can provide better support for early stage ventures than cross-border investors since the distance makes the investor less closely involved with their portfolio companies (Manigart et al., 2011). Findings by Devigne et al., (2013) concludes that companies raising domestic venture capital initially have a higher growth rate, however, ventures that are funded by both domestic and cross-border venture capital experiences the highest growth.

For venture capital firms specialised in a certain sector, cross-border investments can besides geographic diversification, also provide a competitive advantage against national venture capital firms. In that way the liability of foreignness can be compensated for by the sector expertise. (Tarrade, 2012)

Venture capitalists that invest in more mature companies generally allow broader geographic scope of their investments (Gupta et al., 1992). Cross-border funding is especially valuable for more

mature companies as expanding to new markets and/or internationally usually becomes more important in a later phase (Devigne et al., 2013; Manigart et al., 2011). Because of less information asymmetries, foreign venture capitalists tend to participate in growth stage deals with larger amount invested and venture capitalists that have made many investments domestically, have historically been interested in geographic diversification and due to that makes more cross-border investments.

This is further developed by Murray (1999), examining early-stage investments and the venture capital fund model and demonstrates a negative correlation between fund size and seed investments. As the funds increased in size, investments in early-stage start-ups decreased (Murray, 1999). Furthermore, the cost of due diligence, audit and monitoring is not related to the size of the investment, which makes seed investments less attractive for venture capitalists (Aernoudt, 2005).

3.4 Valuations and exit strategies

It has been theoretically demonstrated by Inderst and Mueller (2004), as well as empirically through research by Gompers (2000), that valuations are positively correlated to the supply of venture capital funds. Valuations are generally higher when the amount of investment funds increases. The supply of funds is positively affected by factors such as the entry of new limited partners or if the average fund size increases.

Regarding attractive investment opportunities, there is a bias towards companies that projects stable cash flows in the short run according to Aernoudt, (2005), and companies with long incubation periods and low profit margins are therefor less attractive to venture capitalists (Amit et al., 1998). There can be some implications to this theory since it does not take into consideration that companies in different sectors are valued on different aspects. For an industrial company, for example, this model could be applicable, but for the currently high-growth and increasingly attractive technology sector on the other hand, it cannot be used. Several of these technology companies, such as Uber, Airbnb and Snapchat, (Bloomberg Business, 2015) have received large amounts of venture capital, in many cases without generating any profits. Valuations are instead based on factors such as future growth, subscriber base, business model and intellectual property.

3.5 Theory conclusions

Research regarding the ecosystem model suggests that the surrounding ecosystem influences the entrepreneurship that occurs in a specific region both in terms of sector focus and level of development (Zacharakis, Shepherd and Coombs, 2003). Since financial support is one of the resources mentioned by Bahrami and Evans (1995), venture capitalists can influence the sub-

sectors in an ecosystem by developing expertise and consequently preference for investments in a certain sector (Zacharakis, Shepherd and Coombs, 2003).

4. Research method

In this chapter the chosen research method and collection of data will be presented.

4.1 Methodology analysis

The methodology model is based on the theoretical framework of this thesis and consists of a combination of content analysis, qualitative research interview models and thematic analysis. The chosen methodology models will be presented in this section.

The first research question is regarding the relationship between the technology cluster and local venture capitalists. Models on ecosystems, such as the application on the technology sector in Silicon Valley by Bahrami and Evans (1995), provide a descriptive framework of what an ecosystem is considered to contain. However, they do not give a rich explanation of what defines that relationship from the venture capitalist's perspective. Therefore it is meaningful to conduct empirical research on a specific ecosystem by interacting with local venture capitalists. The methodology model used is content analysis, which can be used in order to draw conclusions on communicational content. According to Weber (1990), the model is useful to find and describe patterns or trends of for example individuals, groups or institutions.

In previous research on venture capital investment theory it is not clearly defined what is referred to as early-stage and late-stage investments. This makes it hard to completely understand at what point in investment theory cross-border investments become relevant. In order to answer the second research question and draw conclusions on early-stage cross-border venture capitalists investment strategies and how these relate to theory, a method must be used accordingly. A model that can be used to develop theory is qualitative research interview based analysis. For this thesis, the phenomenology method is used to analyse perceptions of the venture capitalists combined with thematic analysis for structure of the empirical results in order to give suggestions on trends of venture capital internationalisation. Selection of samples in the empirical study is based on the early stage venture capital investment amount at different investment rounds suggested by Rose (2014).

4.2 Research approach

Since the research relies on subjective perceptions of venture capitalists, a qualitative method is more suitable in order to interpret and analyse the collected data. According to Holme and Solvang (1997), a qualitative research method provides a comprehensive framework for understanding processes, interactions and circumstances of a situation. The approach can provide a framework for

including unexpected information, as a quantitative approach is more structured and direct, leaving less room for exploration (Blumberg et al., 2011).

Previous researchers within the field of early stage venture capital investments has brought up the issue of making conclusions on worldwide internationalisation patterns including the U.S., since the venture capital market in the U.S. is very large and therefore might show different internationalisation trends (Schertler and Tykvova, 2011). This has been taken into consideration when deciding to conduct a qualitative study on venture capital activity with emphasis on New York, rather than making a general international overview.

4.3 Collection of data

4.3.1 Primary data – approach

This thesis relies both on primary and secondary data sources with emphasis on primary sources. The primary data is originated from original sources and the method of data collection follows a communicational structure. In order to determine a communication approach, several approaches were taken into consideration. Interviews are for this study considered most likely to lead to gathering of information that reflects the venture capitalists' views and opinions on cross-border investments. On the contrary, to use a survey is beneficial when the purpose of collecting data is to cover a broad area with many participants. For this study, the belief is that more in-depth information from a selected group of individual experts will lead to more valuable information.

This research primarily consists of personal interviews, which according to Blumberg et al., (2011) often lead to higher involvement from the interviewee and are convenient for follow-up questions. If a personal interview was not possible, information was collected through telephone interviews.

All interviews have been recorded and notes taken. The interviews have been transcribed in order to not miss any important or relevant information as well as making sure the participants expressed their own views and was not lead to a certain answer. The results from each interview have been interpreted and analysed together with the theoretical framework in order to determine if their perception of venture capital investments is conformable with traditional theory, or can be interpreted as influenced by surrounding trends of internationalisation. The reason to not present the primary data anonymously is because all the interviewees are well known within the area being researched and influential in New York, which impacts the reliability of the thesis.

4.3.2 Primary data – criterion for selection of samples

The primary data from interviews for this thesis is collected from a selectively chosen group based on certain criterions such as investment range and location of the firm (see 3.3 Sample Selection). The interview-form is semi-structured one-to-one meetings and the same questions have been asked in all interviews. The reason for choosing the less structured technique over a stricter one is because this will allow the interviewee to share relevant and unexpected information regarding the discussed topics (Blumberg et al., 2011; Holme and Solvang, 1997). Blumberg et al., (2011) explains the benefits of unstructured interviews as a way to get an insight to how the interviewee interprets the discussed topic and what is considered relevant. Further, it can also be a way of confirming what the interviewer might predict.

The primary data consists of five personal interviews and two telephone interviews, with an aim to cover venture capitalists within early stage financing and professionals working with cross-border funding in New York. The first point of contact was made through an email invitation, explaining the thesis or by an introduction made by someone I knew in New York. All interviews lasted for approximately an hour each and four of the personal interviews took place at the interviewees' office while one was conducted in a co-working space. The telephone interviews were conducted from the Consulate General of Sweden in New York. However, one of the disadvantages with telephone interviews is that responses might be less complete (Blumberg et al., 2011). There was a difference in the amount of descriptiveness and presented examples compared to the personal interviews, which felt more in-depth.

4.3.3 Primary data – interview method and structure

The interview questions are of significant importance in a qualitative research study for gathering relevant expected and unexpected empirical data.

In previous research covered in the theoretical framework, the resources of an ecosystem is presented but not from the perspective of the venture capitalist. In this thesis the samples have, as mentioned in the previous section, been chosen on certain criterions and early-stage investments are based on Rose's (2014) definition.

Open-ended questions and discussion topics had been prepared in advance of each session. The interviews are divided into three sections. Questions to the introducing section relate to the background of the firm by asking about what type of investment they pursuit and portfolio composition. The second section relates to the first research question regarding ecosystem and follows a communicational method of analysis. Questions such as how has the ecosystem in New

York developed and differences across regions will communicate the venture capitalists perspective and can then be used alongside the theoretical framework to further explain what defines the relation to entrepreneurs. The last section regarding the second research question of venture capitalists and investment strategies follows a phenomenology method where questions of perception have been analysed regarding incentives for why or why not they are pursuing cross-border or domestic investment strategy. This section also follows a thematic method where discussion about internationalisation trends within early stage investments are analysed by identifying patterns and trends. Because of the open-ended approach, the follow-on discussion took slightly different directions in each interview. The reason for talking about the background of the firm and current investment portfolio was to ease the comparison to previous research regarding investment theory and to draw conclusions. The interview questions can be found in Chapter 9.

4.3.4 Secondary data

Secondary data was collected to complement the primary data. According to Blumberg et al., (2011), secondary data can be very useful in a qualitative study to determine the general context, but it is important for the researcher to bear in mind quality and reliability check when using data provided by organizations. Works written by David Rose, one of the interviewees and relevant research will be covered.

4.4 Sample selection

When deciding on criterion for selection and whom to interview, the strategy was to select interviewees making different investments rather than similar ones. The selected venture capital funds are based in New York, invest in early stage companies ranging from angel investing to Series A. However, within this range, samples have been selected upon different investment thesis e.g. domestic / cross-border investments and investment amount, in order to analyse the empirical data from a broader perspective. The selection was made from a database of active venture capital funds in the New York area created by the Consulate General of Sweden in New York. The criteria for selecting people to interview from the database were fund characteristics (investment stage and sector focus) as well as other factors such as composition of portfolio companies and investor recognition (e.g. David Rose, one of the interviewees, is considered one of the most successful and well-known technology investors in New York).

The reason for interviewing venture capitalists from funds that engage in cross-border investments, as well as domestic investors, is to gather a more complete framework for the analysis. To understand the development of the technology ecosystem in New York and the local venture capital market, interviews have been conducted with angel investors, venture capitalists from two

New York-based seed funds, one that invest in overseas companies and one that does not. Further, an interview was also conducted with a professional working at an accelerator program for international start-ups that wants to enter the U.S. market. Lastly, an interview with a venture capitalist from a Series A fund in New York that invests overseas. To get a deeper understanding of the development of an ecosystem, an interview was held with an entrepreneur who turned angel investor. To get a broader understanding of angel funding, I have participated in a seminar with Brian Cohen, one of the most experienced angel investors in New York and chairman of New York Angels, who discussed angel funding together with founders of Swedish start-ups that are seeking capital in New York.

4.4.1 Description of companies and interviewees

BASSET INVESTMENT GROUP

Basset Investment Group is an affiliate of Modern Holdings. The fund makes seed stage investments in the U.S. and internationally. The portfolio consists of companies with headquarters in U.S. and India as well as international companies with U.S. offices.

• Ryan Darnell, (Principal)

FABRICE GRINDA AND JOSE MARTIN INVESTMENTS

Fabrice Grinda and Jose Martin Investments make passive angel investments, investing in the U.S., Europe, Asia and Latin America. They only invest in business models that have been proven in the U.S.¹ The industry focus is Internet/e-commerce. Fabrice Grinda and Jose Martin Investments have invested in the UK, France, Germany, Russia, Turkey and Brazil. Countries for sourcing future investment opportunities include Mexico, Nigeria and Indonesia.

■ Guimar Vaca Sittic, (Angel investor)

GREYCROFT PARTNERS

Greycroft Partners is a Venture Capital fund established in 2006 with offices in New York and Los Angeles. The fund makes approximately 18 investments per year and 20% is invested in international companies and the industry focus is digital media.

The founder of Greycroft Partners, Alan Patricof, had recognised that many venture capital firms, as they grew in size, became more focused on very large transactions. He could therefore see a market opportunity for a smaller fund with invested capital less than \$200 million. The fund's aim is to exit through a trade sale rather than an IPO. The fund co-invests with other funds and has an

¹ E.g. IPO or approximately \$100M in annualized revenues. Most of the companies used to be Series C onwards (interview Guimar Vaca Sittic).

ownership of 1%-20% of the companies in their portfolio. Greycroft Partners has invested in companies from the U.S., Estonia, Iceland, China and the UK. The firm typically invests between \$0.1m and \$5m at inception (Capital IQ, 2014) and aim for a 4-10 time return on investment for the limited partners.

Alexander Farkas, (Associate)

HIGH PEAK VENTURE PARTNERS

High Peak Venture Partners is a New York-based Venture Capital fund making 7-14 seed stage investments per year in B2B assets and e-Commerce. The firm typically invests between \$0.5 million and \$2 million in its portfolio companies (Capital IQ, 2014).

• Renee Park, (Associate)

GUST

Gust is a software company founded by David Rose that provides a worldwide platform for investors, entrepreneurs and start-ups. The platform serves organisations and angel investors and connects them with investment opportunities. Over \$1.8 billion have invested in start-ups via Gust and the platform is available in six languages, in over 200 countries, with approximately 50,000 angel investors and 300,000 start-ups of which approximately 30% are international companies.

■ David Rose, (Angel investor and CEO of Gust)

NEW YORK ANGEL NETWORK

The New York Angel network consists of roughly 100 angels and they have in total invested over \$45 million since 2004. The angels invest collectively and each investment ranges from \$0.1 million to \$1 million. They also engage in mentorship of entrepreneurs and start-ups and they sometimes collaborate with business school programs or other organisations. I participated in a seminar of behalf of the Consulate General of Sweden in New York on 25 January 2014.

■ Brian Cohen, (Chairman)

WORLDWIDE INVESTOR NETWORK

Worldwide Investor Network (WIN) is an accelerator program focusing on international companies and consists of a one-month program to prepare international start-ups for entry into the U.S. market. The program includes mentorship, introductions to investors and pitch-events. The mission of WIN is to help international companies expand to the U.S. and get funding overseas. Suitable companies should be post-seed, have traction in their local market and ready to expand to the U.S. WIN has a network of incubators and early-stage venture capitalists that help in identifying start-ups outside the U.S. WIN also has a micro-fund investing in start-ups that are post-seed and the aim of the fund is to help them raise capital from investors in a Series A-round.

• Sharon Mirsky, (Vice President of Operations)

4.5 Reliability and validity discussion

According to Eriksson and Kovalainen (2010), validity is defined as the precision of what is measured and further how it is outlined with regards to the research questions. When conducting research from semi-structured interviews as primary source of data collection, there is a high level of reliability. The outcome of interviews is dependent on how much the interviewee is willing to share, and to some extent, what the interviewee is gaining from sharing certain information. However, this study does not cover a sensitive topic and therefore it is unlikely that interviewees would share misleading information or refuse to discuss the addressed topics.

In qualitative research there is however always a risk of misunderstanding in communication or interpretations being made by either the interviewee or the interviewer (or both) that might lead the conversation in other directions than the intended. The theoretical framework had been clearly structured in advance of commencing the interviews, in order to limit the risk of asking for irrelevant information, and to maintain the focus of each interview on the relevant topics. Further, all interviews were recorded along with written notes taken at the time of interview. Recording was made to increase objectiveness of the qualitative study and to mitigate the potential issue of affecting the interviewees' answers.

The choice of using semi-structured interviews in a qualitative study can lead to issues for further researcher according to Blumberg et al., (2011) since there might be difficulties in receiving the exact same results in a future study. However, general interview techniques have been studied prior to the interviews in order to ease for other researcher interested in this field.

The objective with the interviews was to collect primary data from individuals, that are highly knowledgeable and experts in their field in order to increase validity and to be able to draw conclusions about venture capitalists' current view and opinion on early stage cross-border investments. The decision to only conduct interviews with a limited number of people makes it possible to present almost all data gathered, which would be less feasible for studies comprising a larger set of interviews. A study in which only the most important findings are presented would be in great risk of bias, making the results less reliable.

5. Empirical data

In this chapter the empirical data from interviews and secondary sources will be presented. The parts are divided into development of the technology ecosystem in New York, current situation and differences between the East and West Coast. The interviews have for this topic been integrated and key quotes highlighted. After that, the findings from the participating venture capitalists on cross-border investments will be presented.

5.1 Historical development of the technology ecosystem in New York

In the early 1990s the software technology industry and the venture capital market in New York barely existed. The technology ecosystem and community in New York have developed quickly since then. David Rose describes how Internet in the mid-1990s was interpreted as a media rather than technology. Because New York is one of the world's largest media hubs the market consequently grew quickly driven by advertising agencies (at the time referred to as digital agencies). This laid the ground for the first technology boom in New York. "New Media" was an accommodation of websites presented as newspapers and web-design firms that were coming out as advertising agencies to create advertisements on the web (David Rose). These companies had high valuations based on future expectations. David Rose illustrates the valuations with two examples:

- 1. When the media company Netscape went public in 1995, it doubled its share value on the first day of trading.
- 2. DoubleClick, the largest Internet company in New York at the time did an IPO on February 23, 1998, valued at \$270 million. The share value of DoubleClick increased by almost 70%, even though the company was unprofitable.

After 1996, there was a large interest in investing in start-ups and valuations of private companies increased significantly (David Rose). However, most people had not understood the technology behind the companies. The technology was still expensive and most importantly, the Internet had not been adopted by a large enough audience to be able to sustain interest in these companies. The business models were poorly developed without strategies of how to generate revenues and profits. The situation lasted for approximately three years, until the technology industry got so overheated that it crashed in 2000.

"New York had no technology infrastructure, nothing, so the whole thing got wiped out. There were however, one or two companies that had grown just big enough to get over the edge, like DoubleClick, which was later purchased by Google." (David Rose)

During the aftermath of the bubble (2000-2005), the number of people who understood what the Internet was reached critical mass. The cycle of booms and busts is being explained by David Rose as a natural cycle of innovation and how one of the drivers is that the capital market tends to overinvest and feed the system with too much money before starving it. Right before the burst of the IT bubble, there was too much capital in the technology industry and therefore very easy for entrepreneurs to get funding.

In the aftermath of the burst of the IT bubble, there was a sufficient amount of people left from the first technology cycle in New York to sustain the ecosystem, including entrepreneurs familiar with technology, designers and venture capitalists. David Rose argues that angel investors actually benefitted from the burst of the IT bubble in 2000. Valuations were relatively low (i.e. making it cheaper to invest) and there were limited resources among venture capitalists due to their limited partners wanting their invested capital back. This resulted in increased demand for capital provided by angel investors.

"All people involved [in the technology ecosystem in New York] had to be creative. And there was enough people the second time around to seed [the technology companies]. And then the most important thing was the fact that New York City is the capital of the world in many aspects such as advertising, finance, food, fashion and media. All these things, and in the second coming of the Internet people realised [that the Internet] was not just another screen, it is a core business itself." (David Rose)

This meant that industries which already have a strong concentration in New York also became industries that new technology was applied to, such as financial tech, advertising tech, fashion tech, media technology and e-commerce.

In summary, the technology and venture capital ecosystem in New York was small and immature in the early 1990s. The Internet was viewed as a part of media, rather than a core business in itself. Fuelled by the New York media industry, the technology industry grew quickly and attracted increasing interest from investors due to rising valuations based on expected future profits. The valuations proved unsustainable and the IT bubble burst in 2000. The subsequent lack of venture capital and lower company valuations was beneficial for angel investors. They seed funded a second generation of technology companies, where Internet and the technology itself was a business, rather than a part of media.

5.2 Current development of the technology ecosystem in New York

In the past, New York has struggled with the fact that a large share of the best technology talents would choose to work in Silicon Valley. That trend is changing with more and more entrepreneurs and companies choosing to establish themselves in New York.

"Right now New York City is the single fastest growing technology ecosystem in the world. It is second in size to California. We have about 10,000 start-ups in New York City alone." (David Rose)

Policies by previous mayor of New York, Michael Bloomberg, have been influenced by his personal interest in technology. To encourage the technology community he decided to re-launch New York as a "tech city". This was to diversify the economy, in order to decrease the risks associated with economic cycles after the financial crisis in 2008. The economy in New York is strongly focused and developed from networks and MeetUp (platform for organizing events) can be recognised as a resource for development and growth of the ecosystem (Bloomberg, NYC gov, 2009). Sharon Mirsky from WIN explains that international start-ups need networks to access the ecosystem in New York, including knowledge, capital and customers.

Knowledge and university clusters are another factor that impacts the development of a technology ecosystem. Mayor Bloomberg initiated a New York University (NYU) campus located in the so called technology triangle in the Flatiron district, New York. The combined Cornell University and Israel Institute of Technology campus on Roosevelt Island has also gained recognition, as the universities are important in bringing technology talents to New York (Renee Park). The policy by the mayor has to some extent influenced leading technology companies from the U.S. West Coast to focus on New York to a larger extent than before (David Rose).

"The technology community in New York is very collaborative right now, but this is something that might change as it gets bigger. In retrospect, Silicon Valley was much more collaborative in its earlier stages of development." (Renee Park)

According to Renee Park it is common that seed funds co-invest with angel investors. Angels rarely lead deals because of high investment volume (angel investors typically invest in up to 50 companies per year). Most deals that High Peak Venture Partners invest in come with a lead investor, so therefore High Peak Venture Partners usually does not lead the investment (Renee Park). Alternatively the company chooses another lead investor, someone that the company syndicates with. As the company raises capital in new rounds, investors in prior rounds will exit

and new investors will enter. This is because of different investment ranges of funds in terms of size of invested capital. For earlier stages of investment, it becomes more important with a local presence compared to investing in a more mature company (Alexander Farkas). This is in line with what Sharon Mirsky describes as an identified pattern where venture capitalists in New York want to see business traction on the local market before making an investment. In the experience of Sharon Mirsky, it is easier to scale and build relationships when being geographically close to the investor.

About the current technology market and future prospects, Renee Park believes that there is a valuation bubble to some extent.

"The companies nowadays have more solid business models, so it will not hit as bad as the crash in 2000 when everything with a URL got invested in. I just met a company that designs and decorates offices for start-ups, that is their whole business model. The fact that there is enough demand for that kind of business is a little bit scary. They are not the only firm that does it either. There are actually a couple of those." (Renee Park)

A contributing factor behind relatively high valuations and demand for technology companies to invest in is to some extent an increased amount of IPOs recently and the fact that there is growing business around New York's core industries. Also, valuations of private companies are currently relatively high.

"The people who are in it for the right reasons will continue to build their business while the people who are leaving their jobs and starting companies just because of the fact that they want to be entrepreneurs and run a company have to be differentiated. The later will probably slow down, that is where we are going to see the decline." (Renee Park)

In summary, more talented individuals and companies in the technology sector are establishing themselves in New York than before. Public policy, including by the previous mayor of New York, Michael Bloomberg, is supportive of the technology industry. In early stage investing, angels and seed funds commonly co-invest, with one investor leading the transaction and with smaller investors co-investing. Currently, valuations are relatively high, partially driven by a high number of IPOs and growth of core industries in New York.

5.3 Characteristics of New York investors

The edge that Silicon Valley has over New York in terms of exits is that they, in the common view of the interviewees, will not be as big in New York as they will be in Silicon Valley.

"Valuations tend to be different, and even when talking to start-ups you get a sense of it because pitching to West Coast investors is very different from pitching to East Coast investors. East Coast investors tend to be more finance oriented, they want numbers and a business model, while West Coast investors want to see the big dream and vision." (Renee Park)

The technology community in New York is characterised by the fact that New York is the world leader in several industries and that most entrepreneurs come from an industry background. That has made the start-up scene more pragmatic and more practical, since many of the solutions offered by New York technology companies have developed from problems identified by the entrepreneurs when they were working in a particular industry. In Silicon Valley, entrepreneurs typically come from outside of the industry, which might make them see beyond the practical aspect and have a wider perspective. However, the disadvantage can be that since they do not have a background in the industry, they are detached from how that industry operates. These differences are how the start-up communities on the West Coast and East Coast complement each other according to Renee Park.

"I think that East Coast and West Coast investors are looking for different things. And I'm sure that also translates to U.S. investors and international investors." (Renee Park)

5.4 Investors' perspective on cross-border investments

5.4.1 Renee Park, Associate at High Peak Venture Partner

High Peak Venture Partner is a small fund that makes 7-10 investments per year. The fund works very closely with each of the portfolio companies and the venture partners have backgrounds as former entrepreneurs. The investment strategy is geographically focused on investments in New York. Renee explains that they want to have the portfolio companies within a narrow distance because that means they can affect the outcome of the investment to a larger extent than if they were located in a different region. She continues with arguing that being geographically close is beneficial when it comes to making introductions and access the technology community in New

York. High Peak Venture Partners has built a strong network in New York and their investment thesis is built on that sentiment.

"It is harder for us to invest in a company overseas, because when you only have traction outside of the U.S., and the fund doing only 7-10 investments per year, it becomes more risky. There are so many companies we see, there are so many right here in this area, so it is almost just like, why would you take that additional risk? Besides the other risks we are taking." (Renee Park)

A pattern among foreign companies raising capital in the U.S. is that they tend to be interested in raising capital at later stages than High Peak Venture Partners invest at.

"We focus on seed stage, so usually the scenario is, ok this is interesting but it's too expensive for us." (Renee Park)

Renee Park explains that they see a lot of interesting companies coming from Europe and especially Israel, and the companies have usually received seed funding in their home country. When they expand to the U.S. they have a working business model, a prototype and some traction and according to Renee Park it makes sense that they have tried the business in their local market before expanding abroad.

What is especially interesting with the Israeli companies is that they are further along in their start-up cycle than companies from other countries. Renee Park has recognised a trend where these companies expand to the U.S. earlier than companies from other countries, partly because of the Israeli governmental support of start-ups. She is seeing this trend in other European countries too, but Israel is ahead of the curve right now. There is a strong presence of incubators and accelerators and also networks and programs that bring them over to the U.S.

Renee Park continues with explaining that the challenges are that the technology of Israeli companies is advanced but in terms of consumer facing it is not a good fit for the U.S. Their focus is on building strong technology rather than marketing and positioning. Market insight is important in order to scale. To make a product compatible to a new and different market is one of the issues that investors see in general with companies expanding to new markets and raising capital. According to Renee Park this has changed over the last years though. A trend of internationalisation in recent years has been for venture capital funds to establish an office abroad in a geographic location that provides a cluster of interesting start-ups to invest in. A challenge that investors are facing in general with investments in international companies is whether they will be

able to translate their product to the U.S. market and if they have the support required. A part of that is to get the right team members, who have insight to the U.S. market. But if someone came and built an equally good product in the U.S. with a U.S. based team, High Peak Venture Partners would probably invest in them instead. There is a large supply of interesting technology companies in the ecosystem with business traction in New York.

5.4.2 Alexander Farkas, Associate at Greycroft Partners

Greycroft Partners has a fund that makes Series A-round investments, both domestically and internationally. Alexander Farkas explains that in order to invest, the company should have some invested capital, traction and revenue stream.

What can come across as unique with Greycroft Partners is that the fund does not require the company they invest in to establish an office in the U.S. Greycroft Partners invest up to 20% globally, and currently they have approximately 12% invested in foreign companies. Alexander Farkas mentions Scandinavia as an interesting region to invest in, because of the growing technology community and since several Scandinavian start-ups have successfully expanded internationally. He applies their investment thesis regarding cross-border investments to the specific case of a Swedish founded start-up. Greycroft Partners gave the company a term sheet and was interested in investing but a relatively high valuation combined with the range the company was raising capital at turned out to be too expensive for Greycroft Partners.

Futher, Greycroft Partners takes board observer seats rather than board seats. The reason for this is the amount of companies that Greycroft Partners invest in, approximately 18 per year, and it also means that the fund is less likely to get sued if the company gets sued. He believes that the amount of preferred securities they usually receive gives them enough control as an observer.

Regarding risks associated with overseas investments and risk mitigation there is according to Alexander Farkas, no difference in the risk profile of overseas and domestic investments. If the company is not going to open an office in the U.S., the strategy for Greycroft Partners is to coinvest with a partner that is present within a relatively close geographic scope. They don't have different strategies in terms of holding foreign companies and they do not necessarily favour the company to exit in the U.S.

5.4.3 David Rose, Angel Investor and CEO of Gust

According to David Rose, there are normally very few cross-border investments made by U.S. funds. However, there are a number of venture funds that have decided proactively as part of their sourcing that they are going to open an office in a specific region and invest there. The number of American investors who do single investments outside of the U.S. is very low. Similarly, the number of angel investors who do international investments is almost non-existent.

David Rose agrees with Renee Park and Alexander Farkas in that historically, the rationale of investment strategy was to be geographically close to the portfolio company. But he explains that nowadays, when the economy is more globalised the geographic scope remains a factor, but of less importance. Given high valuations in the U.S., there is an incentive to make alternative investments in regions where "hidden gems" can be found, as a hedge. An aspect to consider is that there are many companies seeking capital. For example, the New York Angel network receives over a thousand applications every year, so the technology community in New York provides the investors with a high supply of investment opportunities. From that, investing in an unknown market becomes challenging.

"It is beginning to change and what we are seeing now with online platforms like Gust and AngelInvest and certain other new equity funding possibilities, is that they are developing an international playground. In a relatively few years you will see much more access to capital internationally as we begin to break down the borders through these online networks." (David Rose)

What he sees is that barriers to distances and culture are shrinking. Gust has approximately 300,000 companies in the platform and 30% of them are international companies. An aspect that makes early-stage investments complicated is the legislation and contractual agreements that is not compatible and very expensive. An area of improvement that David Rose highlights is standardisation of documents and to have legislation that makes it easier for start-ups to exist and through which start-ups can advertise that they are looking for funding. Then it becomes easier for angels and venture capitalists to invest online and as that begins to happen, all challenges related to documentation and legislation will decrease. The goal is to reduce the friction. However, there are few investments that occur relative to the amount of companies looking for funding and it is easier for investors to invest in companies they see, know or can source from their existing portfolio.

In terms of risk mitigation Rose continues;

"Risk is not the issue here, because all things being equal, if it was as easy and rational for me today to invest in a company in Sweden as it is to invest in a

company that is across the street, I would probably be doing that. So I would take all the international companies and all the U.S. companies and put them together and say yes/no/maybe and things would look the same from valuation to estimate what the cost of operation would be and estimations of the market; then I would be happy to do it." (David Rose)

He believes that risk is overrated when it comes to angel investing. Risk does not pertain to that particular company or their business, it pertains to all the risk of being a start-up.

The industry as a whole contains friction, as David Rose exemplifies with contractual agreements, and it becomes harder to raise capital when it comes from institutional investors. So there are enough venture funds, it is just very hard to raise capital for start-ups and it is easier for the venture capitalists to invest in U.S. companies that they might already be familiar with. However, there has been an increase in international funds and existing funds working cross-border and establishing offices internationally. The world is in that way beginning to shrink.

David Rose explains that the gap in equity for early stage funding is to some extent perceptual. In the U.S., approximately 50,000 companies receives venture capital funding every year, but this number has to be multiplied by 400 to get the amount of entrepreneurs who pitch to investors. However, the amount of attention start-ups get that successfully receives funding can according to David Rose give people a perception that it is easier to get funding than it actually is.

"When we talk about what is the expected angel effect on an ecosystem, part of it is perceptual in that I spend most of my time teaching and speaking and writing, judging competitions and working with the community." (David Rose)

On average David Rose makes five active investments a year, where he becomes a board member, make introductions and mentor the entrepreneur to scale the business. Then he invests passively among other angels and venture capitalists in approximately ten times as many companies. He also affects people within the technology community through one-way communication such as lectures, articles, and that is approximately ten times again. Then there are people who know about the New York Angel Network and David Rose as an investor, that might be another 10 times. The rough magnitude David Rose influences the technology ecosystem sums up to 5 active investments, 50 passive investments, 500 people for direct communication and 5,000 people for indirect communication. He emphasize that the role of the angel to develop the ecosystem is more towards the direct and indirect communication, scaled mentoring, than the actual investments, which for many people come across as the angel investors primarily role.

"I probably get a couple of requests per day from entrepreneurs who would love to be my project, who would love to have me mentor them, who would love to be my shadow. There is just no way. Given the fact that my own involvement is limited to 5 companies, I just can't do it. So that is why I proactively expand the direct/indirect group to access more people. I spend probably half my time teaching." (David Rose)

5.4.4 Sharon Mirsky, Vice President of Operations at World Wide Investor Network

As a network focused on bringing over international start-ups to the U.S., and bridging the gap between U.S. venture capitalists and international start-ups, she explains the challenges WIN sees.

"We still see that venture capital today overlook international start-ups because it is much easier for them to just source locally for start-ups in New York. It is more risky for them to invest in international start-ups because the investor don't know the ecosystem there and local market conditions so in many cases we see that unless there are small teams or small offices overseas they usually don't invest overseas." (Sharon Mirsky)

She continues with giving an example of how relationship building becomes more difficult with increased geographic distance and how she has seen that venture capitalists prefer to be involved with start-ups for a period of time before making the investment. However, there are platforms trying to mitigate that.

"I assume this will change and the trend will be that it will be more openness to cross-border investments but at the same time I see that much more start-ups are coming to New York." (Sharon Mirsky)

Sharon Mirsky explains how they have gone from sourcing internationally to be more focused on Israeli start-ups. She believes that some of the best start-ups within big data and back-end technology come from Israel.

5.4.5 Ryan Darnell, Principal at Basset Investment Group

Ryan Darnell explains that investing internationally requires the investor to have a local investment strategy for the particular region of investment. An international investment strategy includes

understanding of country specific risks, regulatory framework as well as local market conditions. The local demographics and market preferences needs to be regarded and he emphasis the importance of making sure that the product is tailored for the specific region. He exemplifies by mentioning one of their portfolio companies located in India with a specific business model that works for the Indian market but would not be suitable for the U.S. market, therefore it is not included in the investment and holding strategy to have this company expanding to the U.S.

With regards to overseas investment activity, Ryan Darnell mentions the significant increase in entrepreneurship in general in recent years, and he also sees an increased interest in investing in cross-border companies and he explains a trend of venture capital funds that are establishing local funds in regions they are particularly interested to invest in. By having a team that is localised in a specific area and have experience from that particular market and regulatory environment, the fund can make overseas investments and mitigate some of the risk associated with making direct cross-border investments. There is more international funding activity but there is no venture capital fund in New York focusing entirely on international investments.

While talking about valuations Ryan Darnell agrees that valuations are currently high in New York and in the U.S. in general but explains further that valuation differs a lot in different areas of the U.S. For example, in the mid-west valuations are lower than in New York and in New York valuations are lower than in Silicon Valley. Factors that impact differences in valuations are according to Ryan Darnell, brand building and recognition, developers, market demand, media coverage etc.

5.4.6 Guimar Vaca Sittic, Angel Investor at Fabrice Grinda and Jose Martin Investments

Fabrice Grinda & Jose Martin Investments makes passive angel investments and most of the deal flow comes from venture capitalists and angel investors that invites them to invest in companies they are raising funds for. Their investment thesis is based on investing internationally in internet / eCommerce intense companies and they have so far invested in Germany, UK, France, Russia, Turkey and Brazil. Countries they will look further into are Mexico, Nigeria and Indonesia. The business model has to be proven in the U.S., meaning that similar companies has raised capital successfully and has concluded an exit.

Regarding valuations, Guimar Vaca Sittic explains that valuations in the U.S. are very high right now and that valuations in emerging markets are lower but growing a lot. However, exits in the U.S. are higher than 2-3 times, compared to emerging markets so this is why Fabrice Grinda & Jose Martin Investments are being careful when it comes to cross-border investments.

5.5 Secondary data

5.5.1 Growth of an ecosystem

Knowledge and capital is crucial for the development of an ecosystem. For the start-up community in New York, exits such as the \$1.1 billion sales of DoubleClick are essential for growth. The effect according to Cometto and Piol, (2013) is that managers and engineers who make money from exits then reinvest in new start-ups either created by themselves or others. In this way the capital fuels the engine of the ecosystem and several leaders of the technology community in New York agrees that the sales of DoubleClick was a very important component in making New York a better city for start-ups. This has also led to synergies since CEO's and other C-level executives of these companies have pursued other entrepreneurial activities to foster the ecosystem.

To attract talented individuals and knowledge to a technology ecosystem, companies that are well established, and require high levels of human capital can be recognised as an important component. The strategic decision by certain technology companies to have a strong presence in New York, such as Google's office in Chelsea, has influenced technology experts' incentives to be in New York, which increases the talent pool and foster the community (Cometto and Piol, 2013).

5.5.2 Initiatives to foster cross-border investments

A strategic decision by the Israeli government was the grant matching program. A 50% research and development investment by the government in specific projects to support private investors combined with the initiation of Yozma in the early 1990s, a program to develop the national venture capital market by establishing 10 venture funds to a value of \$100M. (OECD, 2011)

Foreign venture capitalists became interested by the risk guarantee of co-investing with the Israeli government and counted for 60% of total amount invested. Over 60% of the participating companies of the program have raised more rounds of funding since the program started in 1993 and later went public or got acquired, and 40% of the companies are still active. The Yozma funds were privatised in 1997 and the program was cited by OEDC to be "the most successful and original program in Israel's relatively long history of innovation policy". However, from a broader perspective, the country's economy measured in job-creation and income growth has not kept up despite continued investments, this is mainly because many of the companies get acquired by

foreign companies or expand abroad. Israel still has the largest amount of R&D expenses as a share of GDP among the OECD countries. (OECD, 2011)

6. Analysis

In this chapter, the empirical data will be analysed alongside the theoretical framework. The findings are presented in relation to each research question.

6.1 Which resources have driven the development of the technology ecosystem in New York?

From the ecosystem resources perspective presented by Bahrami and Evans (1995), what is the relationship between the technology cluster and local venture capitalists in New York?

6.1.1 Resources for ecosystem growth

Previous research highlights the impact that U.S. venture capital market has had on the development of innovation and entrepreneurship in the U.S. (Guler and Guillén, 2010b). High market capitalization in the venture capitalists' domestic market favours the conditions of raising funds form limited partners (Schertler and Tykvova, 2011). The high market capitalization ratio in the U.S. has encouraged the development of the venture capital market, and along with that the entrepreneurial environment.

The empirical finding of growth factors regarding the technology ecosystem in New York can be analysed using the resources in the ecosystem perspective model by Bahrami and Evans (1995). The first resource is capital and in New York, successful exits are important for growth since it feeds the ecosystem with capital through investments by the entrepreneurs of sold companies. For New York, the IPO of DoubleClick is described by the participating angel investor David Rose as historically being very important for the growth of the ecosystem.

The second resource in the ecosystem model is knowledge. The technology ecosystem in New York has through successful exits grown financial resources but also knowledge since the entrepreneurs who are reinvesting in the ecosystem contributes with strategic and management support to the companies they invest in. The empirical study confirms that successful entrepreneurs often pursuit other entrepreneurial activity that foster the ecosystem. According to David Rose, university clusters, such as the New York University campus in Flatiron district have also been recognised as a determinant of growth.

The third resource of the ecosystem perspective is technical skills. Historically, technology experts have clustered in Silicon Valley. However, the technology ecosystem in New York has gained

recognition by initiatives of large companies, such as the opening of the Google New York Chelsea office in 2006. This has attracted technology experts and technical skills to the ecosystem.

To conclude, New York is one of the largest financial hubs of the world and this is reflected in the technology ecosystem that has from the ecosystem model perspective developed from the financial resource as main driver of growth to develop and share knowledge and attract technical expertise. The sector focus that characterises the technology ecosystem in New York will be analysed in the next section.

6.1.2 Sector focus of the ecosystem

The start-up scene and technology ecosystem in New York has developed through the application of technology to sectors that New York has a strong focus on. David Rose describes that after the "New Media" wave and the following boom and bust in 2000, the industry leaders got an understanding of what internet was and from there the technology ecosystem grew and became characterised by media-tech, ad-tech and fin-tech. All sectors that New York has a strong presence within. This is in line with previous research because the development and sectors of entrepreneurship in a specific geographic region is related to the surrounding business ecosystems (Zacharakis, Shepherd and Coombs, 2003). Further, the empirical study shows examples of what in previous research is referred to as isomorphic pressure, distinguishing the sector focus of the technology ecosystem in New York. David Rose explains that the technology ecosystem has developed by applying technology to core industries of New York such as finance, media and advertising. Also, venture capitalists in New York have industry backgrounds, for example a career in finance, which influences their way of approaching companies and the ecosystem.

In the experience of Renee Park this has shaped the ecosystem to be more pragmatic compared to the West Coast and could limit the creativity of the entrepreneurs. While comparing technology ecosystems in the U.S., the environment has shaped the culture of the start-up and venture capital community. Renee Park continues that the sectors that have a strong focus in New York are all business-driven to a large extent and while making comparison to the West Coast technology ecosystem it seems like New York venture capitalists are more driven by business models and business traction while West Coast venture capitalists tend to be more interested in the pure idea of the particular venture.

Knowledge and capital is crucial for the success of an ecosystem according to the interviewees. This can be derived from the ecosystem infrastructure model based on resources defined by Bahrami and Evans (1995). The empirical results indicate that entrepreneurs on the East Coast are

forced to be more focused on solving practical issues, develop a solid business model and revenue generation in order to receive venture capital funding. This provides one dimension of the entrepreneur and venture capitalist relation where venture capitalists' requirements influences the entrepreneurs and therefore becomes a dominant influencer of the ecosystem including the development and focus of sub-sectors. Renee Park explains that the West Coast entrepreneurs on the contrary are not from this perspective incentivised to pursue entrepreneurship within such strong business orientation expectations, making the ecosystem less pragmatic.

Another aspect of the entrepreneur and venture capital relation is the strategic support by venture capitalists. Based on the empirical findings that both entrepreneurs and venture capitalists in New York have industry backgrounds, it makes them keen to invest in technology applied to the focus industries of New York. Also providing management support that are strongly focused on the business side of entrepreneurship. The importance of management support is argued for by Tarrade, (2012), who explains that it impacts the development of the start-up and also the exit opportunities and the venture capitalist's proceeds. This is therefore an example of how venture capitalists influences the ecosystem, not only through the initial investment and sector focus, but also the development in general of the ecosystem.

6.2 What is the view among early stage venture capitalists in New York on cross-border investments?

How has traditional investment strategy, which favours geographic closeness, influenced cross-border investments?

6.2.1 Investment strategy

The traditional principle of making early-stage venture capital investments within a narrow geographic scope is explained in previous research (Cumming and Dai, 2011) as well as empirically confirmed being one of the fundamentals within early stage venture capital investments. Sharon Mirsky from the accelerator program explains that venture capitalists today still prefer a local investment strategy, which is in line with the statements by Cumming and Dai (2010). However, even though the theory holds true in current practice, the reasons for it will be further analysed.

To develop this further, research by Gupta et al., (1992) claims that a local investment strategy is due to increased risk of investing and companies face greater business risk with increased geographic distance. This presented correlation between distance and risk is in line with Manigart et al., (2011) who argue that domestic investors provide better support due to geographic closeness.

Sharon Mirsky exemplifies by bringing up the uncertainties regarding local market conditions and relationship building when investing in international companies, according to her venture capitalists want to know the company and entrepreneurs before making an investment. This is in line with what Renee Park and David Rose mentions as not being a matter of risk, rather the fact that they have a large supply of companies to invest in that they already have knowledge of and a relationship with. In terms of finding investment opportunities there is no need of sourcing elsewhere. To conclude, the principle of local investment strategies is still commonly used but the reasons behind seems somehow to slightly have changed.

The theory that venture capitalists at earlier stages prefer to have portfolio companies close by is confirmed by seed venture capitalist Renee Park, explaining that their investment strategy of working geographically close with the portfolio companies improve the outcome of the investment. This is in line with research by Devigne et al., (2013) arguing that domestic venture capitalists are providing better support for companies at earlier stages, as well as early stage investors prefer a narrow geographic scope (Gupta et al., 1992). Renee Park develops that the reason for sourcing only in New York is to a large extent simply because there are a large amount of interesting technology companies in New York right now.

The supply of companies to invest in seems to influence the rationale and the venture capitalist's preference of making a particular investment. This has been identified by Schertler and Tykvova (2011), whose research suggests that venture capitalists prefer to invest domestically when interesting opportunities in the home country increases, which also impacts fundraising conditions. Renee Park, Sharon Mirsky and David Rose empirically confirm this by referring to the growth and expansion of the ecosystem in New York and the large supply of technology companies, both U.S. and international. This has been argued for by previous researchers, concluding that high market capitalization and increased growth encourages domestic investments, while it to some extent decreases the amount of cross-border deals.

Implications regarding risk due to remoteness (Cumming and Dai, 2011) are according to the participating venture capitalists not the primary reason for a local investment strategy. At one of the participating venture capital firms, Greycroft Partners, they do not necessarily see the cross-border investments as being associated with more risk than domestic investments. Also David Rose, the angel investor, points out that it is more about the risks in general of being a start-up than risks associated with a particular business or market so he would be positive to invest internationally if it was as easy as investing domestically. However, being an angel investor is very different from being an institutional investors with regards to due diligence, expectations on performance and exit multiples for example. Ryan Darnell explains that an institutional investor

has a responsibility of generating a certain return on investment to their limited partners while angels invest their own capital and therefore can be less rigorous.

Venture capitalist Alexander Farkas claims that international investments do not necessarily include increased risk. What he emphasises though is the importance of working with a local partner fund, which also has been brought up in previous research (Guler and Guillén, 2010a). This is in line with David Rose's view on local investment strategies. He exemplifies by explaining that historically investors wanted to be within a narrow scope from a holding perspective, which still is a reason behind the strategy but one that is becoming less important in an increased globalised economy with for example online fundraising platforms.

Local institutions heavily impact decision-making regarding new market entry and cross-border investments (Guler and Guillén, 2010b). This was brought up during the interview with venture capitalist Ryan Darnell, who emphasises the importance of having a local investment strategy for a new market and explains that understanding the country specific risks, the legal environment as well as local market conditions is crucial in order to successfully invest cross-border. Most important of the institutional infrastructures are the legal environment and contractual agreements to protect the investor's rights.

Alexander Farkas form Greycroft Partners argues that the amount of preferred securities they usually receive gives them enough control to only take an observer seat and not be on the board. This strategy is in previous research explained to work well when investing in countries with a legal environment that protects the rights of the investor. The cross-border investments that the firm has made are all in countries operating under a legal system developed from the civil law system, which is the most widespread legal system around the world. However, former British colonies use the English common-law system. Lerner and Schoar (2005), explains that when U.S. venture capitalists invests in countries with English common-law systems, they usually accept to have lower control since they can receive minority stakeholder protection through convertible preferred equity. This means that the venture capital fund can spread the portfolio over several investments and it is also easier to administrate from a holding perspective.

For the venture capital firm referred to in the previous paragraph, the strategic choice of investing in companies in markets that have a solid legal environment allows them to diversify their portfolio and balance the large amount of new investments being made every year. According to previous research, a fund making a large amount of investments are more inclined of diversify their portfolio and expanding to new markets (Devigne., et al, 2013). The venture capitalist at this fund, Alexander Farkas, added that a majority of their cross-border investments are made in the UK.

According to Schertler and Tykvova (2011), when gaining foreign experience, the knowledge of a particular market's institutional infrastructure increases and it is therefore common to keep sourcing investment opportunities in that area. Also the fact that both the U.S. and UK use the English common-law system makes cross-border investing easier. When U.S. venture capital firms are deciding to expand to new markets it makes sense to choose the UK as one of the first counties to invest in.

The rationale for a local investment strategy according to both angel investor David Rose and seed venture capitalist Renee Park, seems to be related to domestic supply. With a growing start-up community in New York, synergies of the ecosystem attracts more companies and what have previously, based on traditional investment theory, been a matter of risk now seems to some extent have turned more into a matter of increased supply. David Rose, Renee Park and Sharon Mirsky raises the question of why investors should search for companies abroad when they have several interesting investment opportunities in New York? As the ecosystem grows and develops, internationalisation can be regarded as the increase in relocation of international start-ups to New York. Trends of internationalisation will be reflected on in the following section.

6.2.2 Increased expansion to the U.S. market

All participating venture capitalists explains that they are seeing more international companies that establishes offices in the U.S. and more importantly, Sharon Mirsky develops that the companies relocate at earlier stages. She exemplifies by explaining that in order for the companies to be ready for an international expansion they will have raised initial funding both in order to provide business traction in their region of origin and also to be able to finance the expansion. This is theoretically confirmed by Devigne., et al. (2013) who argue that the highest growth is achieved when the company raises funds both domestically and internationally.

Sharon Mirsky expects a trend of increased international investment activity, as more companies are expanding abroad at earlier stages of development. Also recognised by Sharon Mirsky, Renee Park and Ryan Darnell is that Israeli start-ups are on the forefront when it comes to expanding to the U.S. market. This is related to the government funded venture funds referred to as the Yozma program in the early 1990s. By supporting innovation and ease access to external funding, the technology sector has grown rapidly and both Sharon Mirsky and Ryan Darnell points out that the governmental strategy is behind the trend they have seen that Israeli start-ups are ready to expand internationally at earlier stages than companies form other countries. Yozma also attracted international venture capital funds to Israel by the co-investment policy. International networks make cross-border investments easier according to Sharon Mirsky and this is also mentioned in

previous research (Schertler and Tykvova, 2011). The close relationship between Israel and New York is in Sharon Mirsky's experience explained by the strong Jewish community in New York.

6.2.3 Establishment of a fund in an interesting region

There has been an increase in international funds and existing funds working crossborder and establishes offices internationally, the world is in that way beginning to shrink. (David Rose)

The increased interest in internationalisation among venture capitalists in general has been recognised by the interviewees as well as the current trend for venture capital funds to invest cross-border by establishing a smaller fund in an interesting region of investment. Renee Park sees that a trend of internationalisation in recent years has been for venture capital funds to establish a team abroad in a geographic region that provides a cluster of interesting companies to invest in. Ryan Darnell explains that it becomes more common to have a team that is located in a specific area and have experience from local market and regulatory environment. He has recognised that there is more international funding activity, however no venture capital fund in New York is entirely focusing on international investments.

Investing with a local partner is according to Guler and Guillén (2010a) important both from a due diligence and holding perspective. Ryan Darnell explains this by pointing out the importance of having a local investment strategy also for international investments, which again is in line with the basic rationale of venture capital investing. He continues that establishing a fund abroad as a way of finding investment opportunities and having a team with local market expertise and understanding of the institutional framework can mitigate some of the risks of making cross-border investments. At Greycroft Partners, where approximately 20% is being invested internationally, they are co-investing with a local fund for the reasons pointed out above.

The sourcing of international investment opportunities can be related to the current high valuations in the U.S. and therefore an incentive to make alternative investments in regions where "hidden gems" can be found, and then hedge on that according to David Rose, angel investor. Previous findings concludes that high market capitalization is related to high venture capital inflows and future capital gains as it indicates exit values, and are therefore interesting for cross-border investors (Guler and Guillén, 2010b; Schertler and Tykvova, 2011).

Among the participating U.S. venture capitalists, Scandinavia has been mentioned as an interesting region to invest in. That is mainly because of the growing technology community and that several

Scandinavian start-ups have successfully expanded internationally. It has been explained in previous research that countries with developed institutions that encourage innovation and entrepreneurship often provides attractive investment opportunities (Guler and Guillén, 2010b).

Current strategies for cross-border investments and exits seem to vary among venture capitalists and on behalf of Greycroft Partners, Alexander Farkas explains that they do not necessarily aim for a holding company to exit on the U.S. market, while at High Peak Venture Partners, a seed funds where only domestic investments are being made, the aim is for the companies to exit in the U.S. The current high valuations of technology companies in the U.S. and New York in particular can lead to investors hesitating to invest or being priced out.

7. Conclusions and suggestions for further research

7.1 Conclusions

Which resources have driven the development of the technology ecosystem in New York?

From the ecosystem resources perspective presented by Bahrami and Evans (1995), what is the relationship between the technology cluster and local venture capitalists in New York?

The analysis of the empirical results has been done by applying the resource based ecosystem model. The analysis shows that the financial resource (capital) has strong influence on the technology ecosystem in New York. This is mainly due to the large financial industry in New York, which has driven the development and growth of the ecosystem. It has to some extent shaped the ecosystem to be more pragmatic and business model oriented compared to the West Coast and can therefore limit the creativity of entrepreneurship. The limitation on the creativity of the entrepreneur is a clear example of isomorphic pressure. This is further seen in the sector focus of the technology ecosystem in New York, namely providing business oriented solutions to the industries that the business community as a whole in New York has a strong focus on.

What is the view among early stage venture capitalists in New York on cross-border investments?

How has traditional investment strategy, which favours geographic closeness, influenced cross-border investments?

The empirical findings in this study supports traditional investment theory, as the findings show that venture capitalists prefer to invest domestically when there is a large amount of local investment opportunities. A clearly recognised trend of internationalisation - or "reverse internationalisation" from the perspective of the New York venture capitalists - is the trend that companies founded abroad are expanding to New York at an earlier stage in their development. The growth of the technology ecosystem in New York has increased its attractiveness to foreign founded companies. In cross-border investments, what in the past was a question of risk seems to have changed into a matter of increased supply. When an ecosystem is growing and as it gets more mature, companies relocate to benefit from synergies of the ecosystem. This gives venture capitalists access to invest in companies founded abroad, while the companies have business traction in the local market of the venture capitalist.

The overall interest for cross-border investment is increasing but venture capitalists still favour traditional investment strategy of geographic closeness. Venture capitalists participating in the

study recognise a trend among themselves to establish small funds in interesting regions abroad. This is due to the importance of having a local investment strategy. The decision to enter new markets is to a large extent dependent on the institutional framework in each specific market, including legal environment, maturity of financial markets and political stability. The most critical factor is the ability to enforce contractual agreements, and consequently venture capitalists prefer to invest in countries with the same legal traditions as their home country.

7.2 Suggestions for further research

A relevant question for future research would be to examine if interest for cross-border investments is strongly driven by current high valuations and therefore cyclical, or if this is a trend in general.

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9. Appendix

9.1 Figures and charts

9.1.1 Appendix 1 – Environmental ecosystem



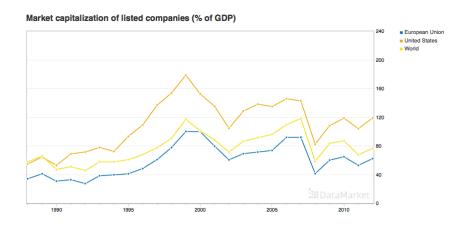
Source: Bahrami and Evans (1995)

9.1.2 Appendix 2 – Legal system

Family of legal origin **Country** Australia English common law Belgium French civil law Canada English common law China German law / civil Scandinavian law / civil Finland France French civil law Germany German law / civil Hong Kong English common law India English common law Indonesia French civil law English common law Israel Italy French civil law Japan German law / civil Korea German law / civil Netherlands French civil law South Africa English common law French civil law Spain Sweden Scandinavian law / civil United Kingdom English common law **United States** English common law

Source: Megginson (2014)

9.1.3 Appendix 3 – Market capitalization



Source: The World Bank (2014)

9.2 Interview questions

9.2.1 Sample interview questions

Introducing questions

- Give a short overview of the firm.
- What types of investments do you pursuit?
- What are the criterions for investment?
- How is the portfolio composed? (Geography, sector etc.)

The technology ecosystem in New York

- What characterises the technology ecosystem in New York?
- What is different from other U.S. technology ecosystems?
- How has the technology ecosystem developed?
 - What is your perception for the future?

Venture capital and cross-border investments

- Why / why not are you making domestic / international investments?
- What is your view on internationalisation trends within early-stage venture capital?