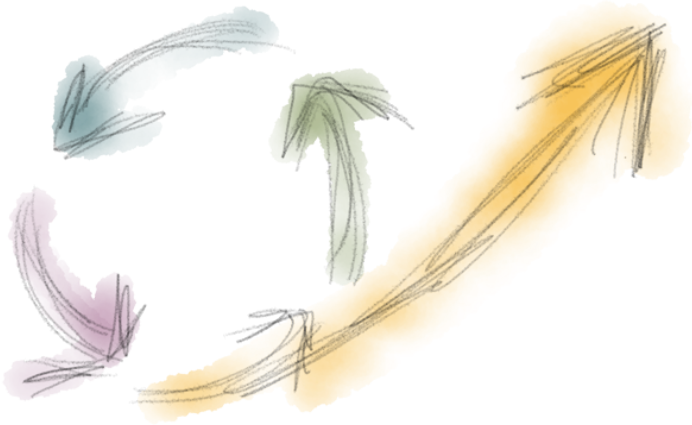
CHALMERS



Accelerating Success: A Study of Seed Accelerators and Their Defining Characteristics

Bachelor Thesis in Industrial Engineering and Management

LISA BARREHAG
ALEXANDER FORNELL
GUSTAV LARSSON
VIKTOR MÅRDSTRÖM
VICTOR WESTERGÅRD
SAMUEL WRACKEFELDT

Department of Technology Management and Economics
Division of Innovation Engineering and Management
CHALMERS UNIVERSITY OF TECHNOLOGY
Gothenburg, Sweden 2012
Bachelor Thesis TEKX04-12-10

”YC is now getting just over 1 application per minute.”
- Graham, Paul. (@paulg)
11:26 PM, 10 Oct 2011. Tweet.

Acknowledgements
This thesis was made possible by the help and support of numerous individuals and organizations. First and foremost, we would like to thank our supervisor, Associate Professor Henrik Berglund for advice, input and guidance throughout the project. Further, this study was developed in cooperation with Mr. Timo Lehes, Investment Manager at Chalmers Innovation, whose interest in the project has been encouraging and useful. The thesis had not been possible without the accelerator representatives, mentors and startups, who generously contributed to the results of the thesis. A special thanks goes to Scalemetrics for the financial support that made the interviews possible. Finally, we would like to thank several individuals from the institution have contributed with their expertise in certain fields.

Gothenburg, May 2012

Lisa Barrehag

Alexander Fornell

Gustav Larsson

Viktor Mårdström

Victor Westergård

Samuel Wrackefeldt

Abstract
The seed accelerator phenomenon is growing worldwide, with an ever-increasing number of active programs primarily in the United States but also in other parts of the world. Prominent seed accelerators such as Y Combinator have received significant attention in the entrepreneurial community and are continuously exploring potential startup ventures. However, there is little formal academic literature on the subject, and no universally accepted definition of what a seed accelerator is.

This thesis investigates the characteristics of the seed accelerator in order to contribute to such a definition, as well as to provide insight into the accelerator phenomenon on behalf of the stakeholder of the project, Chalmers Innovation. This is achieved through case studies of prominent American and European seed accelerators and by comparing and contrasting the results of those studies to the available literature.

The general characteristics of an accelerator as described by Miller and Bound in their report *Startup Factories* are supported by the research findings. Furthermore, additional defining features regarding the network of stakeholders surrounding the accelerator, the organization and frameworks used by accelerators, and the accelerator program cycle are found and discussed through analysis of the data produced by the case studies.

Keywords: Accelerator, Incubator, Startup, Innovation, Venture Capital, Lean Startup, Customer Development

Sammandrag
Företagsacceleratorn är ett växande fenomen världen över, med en ständigt ökande skara av aktiva program främst i USA men även i andra delar av världen. Framstående acceleratorer såsom Y Combinator har fått mycket uppmärksamhet i entreprenörskretsar och utforskar ständigt nya tänkbara affärsidéer. Det finns dock sparsamt med akademisk litteratur på området och en formell definition av företagsacceleratorn saknas.

Denna rapport undersöker vad som kännetecknar en accelerator for att kunna bidra till en sådan framtida definition men även för att skapa insikt i fenomenet åt projektets externa intressent, Chalmers Innovation. Detta åstadkoms med hjälp av fallstudier av framträdande amerikanska och europeiska acceleratorer och genom att jämföra och kontrastera detta material med den tillängliga litteraturen.

Den beskrivning av acceleratorer som förs fram av Miller och Bound i deras rapport *Startup Factories* visar sig stämma väl överrens med det material som framkommer i studien. Vidare presenteras fler karakteristiska kännetecken hos en accelerator rörande dess nätverk av intressenter, den organisation och de ramverk den använder, samt den cykel en accelerator går igenom under varje program.

Nyckelord: Accelerator, Inkubator, Startup, Entreprenör, Innovation, Riskkapital

Table of Contents

1 Introduction

In 2005 the seed accelerator was born in Silicon Valley, the home of many serial entrepreneurs in the software industry. Seed accelerators allow for startups, investors and entrepreneurs to connect with each other and have become a way of shaping startups into scalable and viable businesses. However, there is no broad consensus regarding what defines a seed accelerator and thus this thesis will investigate and attempt to answer that question. This chapter introduces the concept of the seed accelerator and discusses the contributions of the thesis.

1.1 Background

The seed accelerator (or business accelerator, henceforth referred to simply as accelerator) derives many of its characteristics from the business incubator. Therefore it is natural to start the thesis by introducing the concept of incubation. The term incubator was first used in its business sense in 1959 and the general idea behind the concept is to create an institutionalized environment that assists and enables startup companies and business ideas to grow. The process of developing a startup company within an incubator can be rather extensive, sometimes spanning several years. The incubator focuses on providing the prerequisites for a company to develop, such as housing, expertise and business contacts. Further, the costs associated with administrative functions within a company may be subsidized. Startups participating in an incubator program have historically had a greater chance of success compared to startups not participating. The incubator model is suitable for a large variety of companies and ideas and the time they spend inside the incubator varies depending on the needs of the company. (Aaboen 2006, Lewis et al. 2011)

In the years leading up to the dot-com bubble in 2000, several so-called networked incubators started with a focus on IT-based startups. These were highly specialized and consumed considerable amounts of funding from investors at a rapid pace. The model was based on large investments in single projects, which suited venture capital and had previously been successful (Miller & Bound 2011).

As the dot-com bubble inflated, many IT-based companies were despite high expectations of future growth unable to generate revenue (Blank 2005). On March 10 2000, NASDAQ peaked and less than two years later it had lost 80% of its former value. This collapse in valuation meant that many investors lost their capital in companies that had only succeeded in burning through their money without creating anything of value. Critics of the networked incubator investment model coined the term “incinerator” to emphasize the problems of investing large amounts of capital at once without demanding measurable results (Miller & Bound 2011).

As the investment sphere began to recover from the dot-com bubble, the ideas and frameworks put forward by entrepreneurs such as Paul Graham started to gain the attention of the investors. Key concepts included shorter incubation cycles, as most

IT based products can be developed faster than physical products. (Miller & Bound 2011)

In 2005, Paul Graham launched Y Combinator in Silicon Valley. This represented a business idea that had much in common with, but was still distinct, from the traditional incubator. Most importantly, the development cycle of a single startup is usually no longer than three months, which reflects the rapid development of web-mobile applications. In addition, the cost and structure of investments differ in that they are much smaller in each individual startup (Miller & Bound 2011). The kind of business Y Combinator started has become known as an accelerator and there are currently approximately 200 accelerator programs running (Gilani 2011).

1.2 Relevance and Contributions

After the founding of Y Combinator, additional accelerator programs have been launched in America. However, the field of accelerators is sparsely covered in international academic literature (Wu 2011). Even though Christiansen published a report in 2009, which aimed to quantify the success of Y Combinator and while governments have started to take notice of the accelerator phenomenon, there is room for further research (Christiansen 2009, Miller & Bound 2011). Because of this, the intention of the thesis is to better define the characteristics of an accelerator.

The general features of an accelerator are according to Miller and Bound (2011):

- An application process that is open yet highly competitive.
- Provision of pre-seed investment, usually in exchange for equity.
- A focus on small teams not individuals.
- Time-limited support comprising programmed events and intensive mentoring.
- Startups supported in cohort batches or 'classes'.

While these features cover the basic aspects of an accelerator, Miller and Bound (2011) recognizes the fact that there is as of yet no formal academic definition to be found. The main contribution of this thesis is to provide additional research in order to help in creating such a definition. In conjunction with the academic contribution, the investigation is intended to provide material for the external stakeholder of the project, Chalmers Innovation.

1.2.1 Chalmers Innovation and its Relationship to the Thesis

The external stakeholder of the thesis, Chalmers Innovation, is interested in the research on accelerators and therefore the results of this study. According to Timo Lehes, Investment Manager at Chalmers Innovation Seed Fund, Chalmers Innovation is a driving force in implementing Lean Startup in Gothenburg and is interested in developing new tools and ideas.[1]

[1] Discussions with Timo Lehes, Chalmers Innovation. 2012-03-08, 2012-04-04

Chalmers Innovation is a business incubator connected to Chalmers University of Technology, which is supporting innovation and research projects by developing them into profitable businesses. It was started in 1999 and has since helped create over 100 companies, in which they have invested over 1,37 billion SEK from their seed fund. (Chalmers Innovation 2012).

Chalmers Innovation, as a seed fund and business incubator, has a history of investing in long-term technology intensive projects such as bio and medtech companies. However, it is also investing in software companies that are often less capital intensive and have a shorter time to market. Further, it is picking up the trends of systematic, customer oriented and iterative ways of developing software startups originating from Silicon Valley.[2]

Startup Summer Camp was a pilot project arranged by Chalmers Innovation in the summer of 2011, which drew its inspiration from the accelerator concept. The project was arranged as a free of charge eight week long program that involved six teams, two of which later got funded by the seed fund. Chalmers Innovation is currently running a follow-up program, Startup Spring Camp 2012, which is longer and involves more teams. (Chalmers Innovation 2012)

Chalmers Innovation is interested in further exploring the accelerator concept to develop their ongoing and future activities related to early-stage software startups. This interest is what provided the motivation and focus of our thesis.[3]

[2] Discussions with Timo Lehes, Chalmers Innovation. 2012-03-08, 2012-04-04

[3] Ibid.

2 Focus of the Thesis

Starting from the notion that there is little academic research on accelerators, there is a wide range of possible research angles available for this thesis. In order to achieve a specific angle, this chapter outlines a purpose and aim of the thesis, as well as a research question. Furthermore, the scope of the study is described as well as how sustainability fits into the investigation.

2.1 Purpose and Research Question

The purpose of this thesis is to investigate accelerators and determine what defines them. By examining various accelerators and their properties, Chalmers Innovation is provided with additional information on the accelerator concept for possible adaptation and use. Thus, the following research question has been used to achieve the purpose:

What defines a seed accelerator and which aspects are useful for Chalmers Innovation?

2.2 Motivation of the Thesis

The idea of studying accelerators came from an interest in the Lean Startup methodology, which resulted in contacts with Henrik Berglund, Associate Professor at Chalmers University of Technology. Berglund subsequently became the supervisor of the project and introduced the bachelor thesis group to Timo Lehes at Chalmers Innovation. After meeting with Lehes it was decided to study accelerators on behalf of Chalmers Innovation. Accelerators as a way of creating and developing startups is a natural research field within the Department of Technology Management and Economics and is of interest to the students writing the thesis.

2.3 Scope and Limitations

The empirical study focuses on European accelerators because of the geographical proximity to Gothenburg. The implicit assumption is that accelerators in the vicinity of Gothenburg are most relevant when searching for useful information for Chalmers Innovation. Furthermore, the findings in the empirical study are almost exclusively from the point of view of the accelerator representatives. This scope was chosen because it enabled a holistic research angle and facilitated the formulation of the research question. Moreover, as discussed in section 1.2, the thesis will contribute to a future formal definition of an accelerator rather than providing one.

In addition to answering the research question, the thesis will discuss how sustainability relates to accelerators. The sustainability perspective is not of direct concern to Chalmers Innovation and is therefore not included in the main purpose or research question. Rather, it is intended to be a part of a more general discussion about how accelerators fit into sustainable business development.

3 Theoretical Framework

A literary overview had to be carried out in order to assess what theory regarding accelerators is available. A natural starting point was methodologies and management principles such as Lean Startup. Furthermore, other important concepts include incubation, startup funding and sustainability.

The selection of startup funding and incubation was based on previous knowledge about how new ventures are started, while interesting new methodologies were chosen based upon the knowledge about *The Lean Startup* by Eric Ries (2011). When choosing literature on sustainability, the preferred sources focus on the role of the entrepreneur in sustainable development and how accelerators can help to create green businesses.

Sources for the areas investigated were found by searching academic databases for incubation, investment and sustainability. Papers that seemed to contribute to the thesis were selected and additional theory was found by following references in those papers. In addition, Berglund was consulted for sources and references concerning the methodology and management principles used in accelerators and suggested among others Eric Ries and Steve Blank, the author of *The Four Steps to the Epiphany: Successful Strategies for Products that Win.*

3.1 New Management Principles and Methodologies

The impetus for investigating accelerators came from an interest in Lean Startup, which is one of the new management methodologies used by accelerators (Miller & Bound 2011). After initial contacts with Berglund there seemed to be a connection between Lean Startup as a management principle and accelerators.

The Lean Startup concept is inspired the ideas put forward by Steve Blank, a veteran Silicon Valley entrepreneur and lecturer at Stanford and Berkley University. Blank introduced the Customer Development process and argues that it is equally important as the product development process for startups, see Figure 1. Blank argues that finding customers is more important than building technology. Further, he defines Customer Development as getting out of the building, talking to customers and using that feedback to discover what customers want. The knowledge should then be used to build and refine a product that solves their problem. (Blank 2005, Ries 2011)

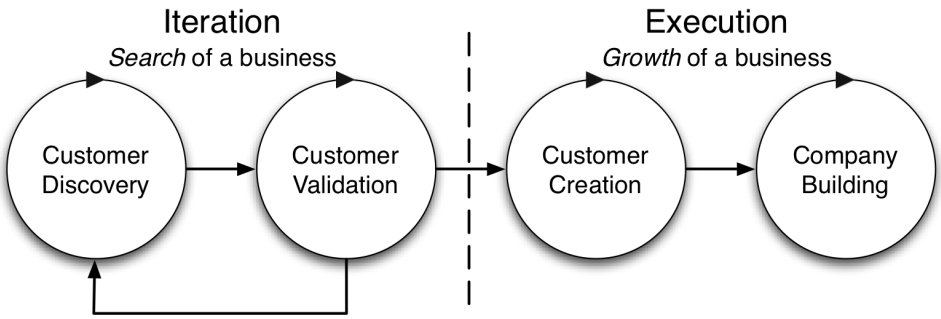


Figure 1, The Customer Development Process. Blank 2005

Lean Startup is a term coined by Eric Ries (2011), an entrepreneur and author who has been blogging, speaking and consulting on what he calls lean startups since late 2008. The Lean Startup methodology is about reducing waste in the process of finding a scalable and viable business by combining the ideas of Customer Development and agile software development. It is based on the iterative build-measure-learn loop where the first step is to figure out the problem that needs to be solved and develop a minimum viable product (MVP), see Figure 2.

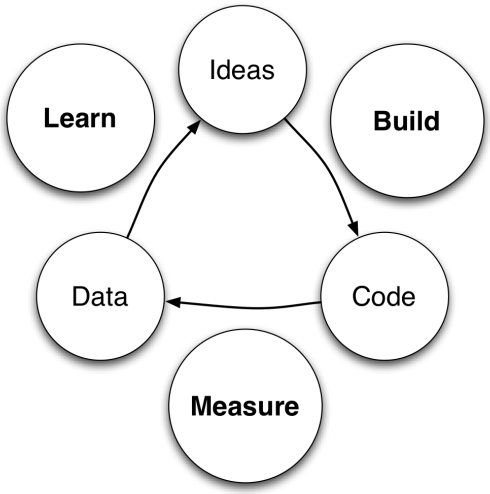


Figure 2, The Build-Measure-Learn Loop. Ries 2011

An MVP is the most basic product that attempts to solve the customer's problem and once it is created the startup should start to measure and learn through repeated customer interactions. This iterative process will guide them in building the right product for their user and whether to pivot (start over) or persevere. (Ries 2011)

Another concept that has gained traction within the Lean Startup movement is the Business Model Canvas by Alexander Osterwalder and Yves Pigneur who are authors, speakers and advisors on business model innovation. In their book *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers* (2010) they describe a way of developing business models based upon nine key concepts. At the core lies the business model canvas, that is a visual chart of the nine concepts such as value proposition, customers and revenue stream. The canvas is used as an iterative tool for refining and describing the business model, see Figure 3.

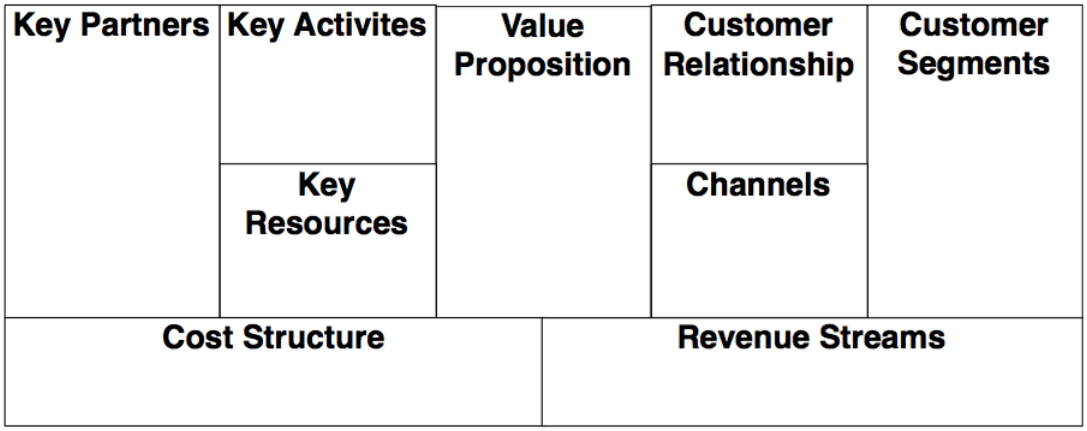


Figure 3, The Business Model Canvas. Osterwalder 2010

To summarize the key ideas presented by these authors, one can say that thorough customer and market evaluation as well as iterative product testing are at the heart of modern startup management theory. These characteristics, as well as their apparent match and potential synergy with software development, seemingly make the methodologies suited for use by accelerators.

3.2 Incubation and Acceleration

The concept of incubation is important for the study of the accelerator since they appear to share common features. Both accept early startups that have a potential commercial viability and they both provide an environment that is meant to serve the needs of a startup.

3.2.1 Background

The first incubator, Batavia Industrial Center in New York, was started in 1959. However, it was not until the 1980s that the concept of incubation started to gain significant traction. Since then the business model has evolved and in 2006 there were approximately seven thousand incubators worldwide. (Lewis et al 2011)

Chalmers Innovation is an example of an incubator in which startups and research projects are provided with funding and a flexible development timeline. Its incubation program is organized in sequences, with different goals of development in each sequence. With a history of over one hundred companies in twelve years and a current portfolio consisting of in-program startups as well as alumni companies, Chalmers Innovation is a fair representative of the incubation industry. (Chalmers Innovation 2012)

According to Aaboen (2008) there have been three generations of incubator development. The first generation focused on job creation while the second generation focused on supplying services such as network, training and connections to venture capital. The third generation on the other hand, focused on Information and Communication Technology, where the most promising startups were prioritized. (Aaboen 2008)

A definition that defines a range of different incubators by their two extremes comes from Grimaldi & Grandi (2005). The first model is focused on providing basic tangible services such as office space to minimize the cost for the startup and to provide it with necessary support. The other extreme describes an incubator that focuses on providing intangible resources to the startup on a short time basis, in order to accelerate the progress of the startup. (Grimaldi & Grandi 2005)

It was concluded that the academic material on incubators would not be sufficient. A broader search for material was therefore done via blogs and presentations on incubators which led to a report published by the British innovation foundation NESTA (Miller & Bound 2011). The third generation of incubators described by Aaboen (2008) and the definition of the second model of Grimaldi & Grandi (2005) seem to share common elements with the accelerator described by Miller and Bound (2011), thus bridging the chasm between the two concepts.

3.2.2 Key Features of an Accelerator

In the report *Startup Factories*, Miller and Bound (2011) investigate the accelerator concept, which is presented as a new way of incubating technology startups. They write that early evidence suggests that it has had a positive impact on the founders of the startups and that it is not as stigmatized as incubators. According to them, startups working with web or mobile related products are particularly suitable for the accelerator model, since their development costs are relatively low. The report outlines five key properties of an accelerator. Note that the report points out that a formal definition is yet to be found in academic literature (Miller & Bound 2011). In addition, while these properties answer basic questions of what an accelerator is, it does not completely map the phenomenon.

- **An application process that is open yet highly competitive.**
  The application process usually consists of filling out an online application as the first step. If an application is deemed interesting by the accelerator the applicants will be called upon for an interview. Many of the programs have a very high application rate, the most well known accept less than 1% of the applicants. It is therefore important that the selection is made by a qualified and experienced jury that can assess the applicants and their potential.

- **Provision of pre-seed investment, usually in exchange for equity.**
  The accelerators typically invest between £10 000 and £50 000 in the startups during the program. This investment is first and foremost meant to cover their living expenses during the program. These expenses are generally funded by external investors.

- **A focus on small teams not individuals.**
  Most accelerators are of the opinion that running a startup during the period of the program would be too much work to handle for just one person. Therefore it is very rare that an accelerator program accepts a single entrepreneur.

- **Time-limited support comprising programmed events and intensive mentoring.**
  Most of the startups going through an accelerator are working with web related products, hence iterations and product development can be done rapidly. The programs are usually limited to about three months and this is believed to create a sense of urgency that encourages intense work and rapid progress. During the program the startups receive mentoring from experienced founders and investors. It is also common with structured events treating subjects like pitching practice, which means practicing presentation skills, or legal advice. The programs usually end with a demo day in which the teams pitch their products to investors.

- **Startups supported in cohort batches or 'classes'.**
  The peer support that the classes provide is an important advantage for the startups. The teams can for example get help from each other with different problems and moreover, receive early feedback on their ideas. Some accelerators provide office space at their facilities while other encourage the teams to find their own places to work in. If there is no single office for the startups they will meet with each other at dinners and events each week instead.

Besides the properties of an accelerator stated above, a definition was found in the report published by U.S. Department of Commerce Economic Development Administration:

> *"*(1) a late-stage incubation program, assisting entrepreneurial firms that are more mature and ready for external financing; or (2) a facility that houses a modified business incubation program designed for incubator graduates as they ease into the market.*"* - Lewis et al. (2011)

Furthermore, in 2009 the MBA Dissertation *Copying Y Combinator* was written by Jed D. Christiansen (2009), focusing on specific features of the accelerator. It investigates which aspects of the accelerator program that matters the most to the startups. The single most important aspect to long-term success turned out to be connections to future capital. For most of the startups it is vital to raise more capital after the accelerator program to further develop their product. This makes the network and connections to investors an important issue for the accelerator. (Christiansen 2009)

Finally, the paper *Do Startup Accelerators Deliver Value? The Economics of Creating Companies* (Wu, 2012) aims to define what value is provided by the accelerator for the startups. It concludes that there are four principal elements; human capital (education), signaling (credibility), search costs (networking) and cost of capital. Further, Wu discusses whether the accelerator can be seen as unique in creating these values. Wu argues that studies at elite colleges can also generate similar values. (Wu 2011)

In conclusion, the theory on incubators and accelerators suggests that accelerators represent a development of the incubation concept. The similarity between the later stages of incubation development and the definition of an accelerator put forward by Miller and Bound (2011) cannot be denied and thus the gap between the two concepts has been bridged. Furthermore, there are various sources that suggest different definitions of an accelerator but no formal academic consensus.

3.3 Startup Funding

Early research for the study indicated that investment in the startup context was an import area to illuminate and *Copying Y Combinator* also supports this notion (Christiansen 2009). According to Miller and Bound (2011), angel investors and venture capitalists are the kind of investors that are the most reoccurring in the accelerator context.

Running a startup is associated with high risk and often requires more funding than the founders can provide themselves. Therefore they need to connect with investors that can provide them with capital (Arundale, 2012). By exploring the two types of investors that are referenced by Miller and Bound (2011), a better understanding of the funding available to startups can be achieved.

The portfolios of venture capitalists (VCs) typically involve high risk investments with a correspondingly potentially high return. They are often organized as a limited liability companies with the investors as partners of the corporation (Privco, 2012). VCs invest in companies in exchange for equity and provides the startup with access to a wider network of specialists. Berglund (2011) writes that VCs in both Scandinavia and California are actively looking for new projects to invest in rather than relying on startups to contacting investors.

According to Berglund (2011), VCs try to get to know the startups as a part of their due diligence process. The reasoning is that they want to be able to say no to potentially poor deals as soon as possible. In addition, the purely technical skill of the teams is evaluated and their previous accomplishments are assessed (Privco 2012).

In contrast to VCs, angel investors are individual investors. Like the VCs, they also invest in a company in exchange for equity but do in some cases also invest in exchange for a seat on the company board. They often take active part in the

company that they have invested in and fill a role as an adviser or non-executive director. (Arundale, 2010)

From the theory presented it appears that VCs and angel investors are the two most frequently recurring investors in the accelerator context. VCs favor high risk, high reward investments which are often the cases with startups, which means that the angel investors that invest in startups participating in an accelerator program probably have a similar risk profile.

3.4 Sustainability

In his book *Cannibals With Forks*, Elkinton (1998) coins the term triple bottom line to describe the three key aspects of sustainability. These three aspects are economic, environmental and social and Elkington asserts that all of them need to be met before sustainability can be achieved. *Cannibals With Forks* thus sets the stage for how the different aspects of sustainability are to be addressed. Regarding accelerators, one can assume that a discussion on economic sustainability is most natural, while environmental and social sustainability are less obvious. The argument is that it is fairly natural to consider an accelerator in its capacity to provide investors with new investment opportunities at minimal cost and waste. However, reduction in cost and waste is mostly discussed in the Lean Startup methodology and exactly how important this methodology is remains to be seen. (Elkinton 1998, Ries 2011)

As discussed in *Sustainability Issues for Start-up Entrepreneurs*, (Freimann et al. 2002) startup entrepreneurs are those most likely to be able to adopt a more environmentally sustainable corporate culture, since startups businesses are still young and open to new ideas. The writers also assert that environmentally conscious entrepreneurs that use sustainability as a business model are generally successful in their ventures (Freimann et al. 2002). Furthermore, Michael Schaper (2010) broadens the definitions used to categorize green entrepreneurs, the so-called Ecopreneurs. He also defines the difference between a green business, and a green-green business. A green business is an existing firm that is moving to a more environmentally responsible position, while a green-green business is generally designed with a product and mission statement that makes it green as a startup. (Schaper, 2010)

The reviewed literature suggests that economic sustainability is relatable to the accelerator concept since reduction of waste in the startup process is likely one of the core properties of an accelerator. However, there are also possibilities for startup entrepreneurs to capitalize on the increasing interest in environmental sustainability. Therefore, accelerators with a differentiating strategy serving startups with focus on environmental sustainability could be a future specialty and hence a competitive advantage. This is especially true with respect to green-green businesses, since the startups can be developed as environmentally conscious from the start. Finally, the reviewed literature does not present obvious connections between social sustainability

and startups, which is why the study will have to rely on empirical findings in order to support possible connections.

3.5 Summary of Theory

The theory presented in this chapter was reviewed in order to assess whether or not there was enough academic literature available to answer the research question. While it is true to say that there is enough material to describe the basic properties of an accelerator such as the report written by Miller and Bound (2011), the material on funding and management methodologies are only implicitly linked to accelerators. It is not clear exactly how this theory relates to the accelerator and in order to clarify this, as well as contributing to the definitions of an accelerator, more data is needed.

4 Research Methods

Although the theory points out interesting aspects of the studied area, it is inadequate to fully answer the research question. In order to accomplish this, this chapter outlines the methods and their purpose, as well as the validation of the collected data.

4.1 Research strategy

After an initial assessment of the available theory and formulation of the research question, it was concluded that the thesis had to be of exploratory nature. An exploratory thesis aims to give basic knowledge about the subject that can be used to gain a better understanding of the context (Wallén 1996). The lack of previous academic theory lead to an inductive approach to the subject since it meant that the theory could be structured as the thesis progressed. Given that the knowledge about accelerators was limited before starting the thesis, it was possible to research the area without significant preconceived notions.

An inductive way of approaching the subject made it possible to adapt the structure of the thesis depending on the results of the study. This also motivated the inclusion of case studies to complement previous knowledge. Since the understanding of accelerators increased as the project went forward, more relevant theory could be added and other parts could be discarded. This meant that the theory that was generated was subject to an iterative process during the work on the thesis.

A qualitative approach was considered the most suitable for the thesis based on the fact that the main source of information was interviews, articles and blog posts. Moreover, there was a limited amount of quantitative data to collect and the gathered information required selection and analysis. Finally, the focus of the thesis is to investigate concepts and connections rather than analyzing measurable factors, which also suggests a qualitative method. (Wallén 1996)

An approach of inductive theory building from qualitative case studies is a method that Kathleen M. Eisenhardt, professor at Stanford University, suggests when there is little previous academic theory available. According to her, this method is one of the best to develop mainstream deductive research from qualitative evidence. In contrast to what one might think, it is also a surprisingly objective way of building theory, since the research focuses on the data. (Eisenhardt 1989)

4.2 Research Design

The research began with a planning report, which described the content of the thesis and outlined the processes of the project. Included in the report were milestones that defined dates when certain objectives were to be met. The supervisor of this thesis, Berglund, is personally interested in the subject and is knowledgeable in the area that was to be researched. This gave the study a starting point in the search for

relevant literature and theory. Most of the early information came from articles about established accelerators and blog post by accelerators and authors of the literature outlined in the theory chapter. In conjunction with the information search online, the books that Berglund recommended was studied to gain an understanding of the management principles and that appeared to be used by accelerators.

After gaining more knowledge about accelerators it was decided to carry out case studies. The first accelerators to be studied were Y Combinator and TechStars located in the USA. These were selected since Y Combinator is referred to as the first accelerator started (Christiansen 2009) and because TechStars have been successful in creating an expanding business (Miller & Bound 2011). The study of these accelerators also meant that it was possible to get a better understanding of how an accelerator operates.

The initial study of the American accelerators formed a base from which it was possible to formulate questions that could be used when continuing more case studies (Appendix B). Members of the project visited accelerators in five cities: Stockholm, Helsinki, Copenhagen, Oslo and Berlin. One accelerator located in Cambridge was contacted via Skype. The researchers worked in pairs when visiting the accelerators, but all interviews were recorded so that all researchers could analyze the findings.

The last phase of the thesis consisted of compiling the empirical material to allow the whole thesis group to discuss and analyze the accelerators. The outcome of the discussion was the analysis, which describes the network of stakeholders, organization and process of an accelerator. These were then used to discuss how the conclusions apply to Chalmers Innovation and to answer the research question. Eisenhardt (1989) argues that this process of using different methods to collect information strengthens the grounding of the theory by triangulation of the evidence. Figure 4 shows the iterative research process.

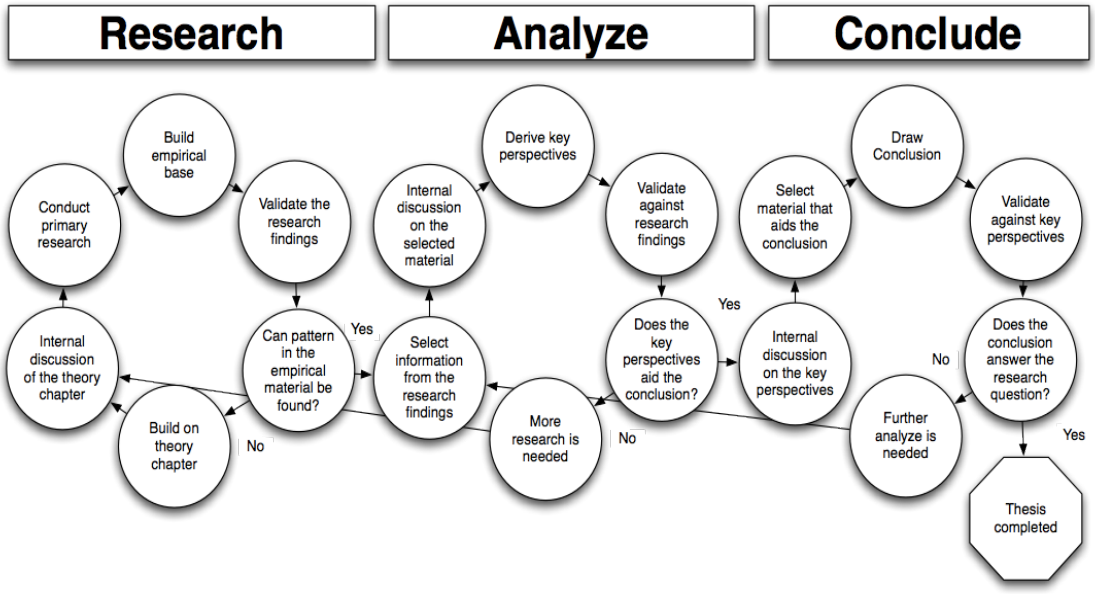


Figure 4, Conceptual Model Of The Research Design

During the process of writing this thesis the supervisor and the external stakeholder were consulted to ensure that the thesis stayed on track. This interaction meant that the project could pivot at an early stage if for example the aims of the thesis and external stakeholder did not align.

4.3 Sample Selection

The main purpose of the case studies was to create a comprehensible overview of the accelerator concept and to increase the knowledge about accelerators. Since the theory was limited on the subject, the initial study of the American accelerators was focused on creating a road map that could be used for the continued investigation.

TechStars and Y Combinator were chosen because they are well known and successful when measured in how many of the startups that managed to get funding after the program (Levy 2011). Unfortunately, there was no possibility of visiting them so the information was collected directly from their homepages or articles about them. However, in this case secondary information was considered sufficient to gain insight into the concept of accelerators.

After studying these accelerators it was decided to select accelerators located in Europe. It was assumed that the context of these accelerators is more similar to that of Chalmers Innovation. None of the accelerators that were selected had been operating for as long as Y Combinator or TechStars but that meant that it was possible to compare and contrast the two types of accelerators. This method of selection is also recommended by Eisenhardt (1989) when working with case based studies.

The accelerators in Europe were found by recommendations from the supervisor and from articles that the group came across when working with the theory. When researching the theory some incubators that branded themselves as accelerators were found but discarded as they did not fit with the description stated by Miller and Bound (2011). The accelerators selected were first contacted via email and twitter where the project and its purpose were introduced. When contact had been established, dates were set for visits and Skype meetings. The interviewees were mainly the managing directors of the accelerators who were able to give comprehensive overviews of the respective accelerators. In addition, mentors, investors and startups of the accelerators were contacted. Some were contacted after introduction from the accelerator representatives, while others were found on the respective homepages of the accelerators. The selection of mentors, investors and startups connected with the studied accelerators was meant to increase the reliability of the empirical findings. They gave their perspective of the same accelerator and it was thereby possible to compare it with the answer given by accelerator representatives.

4.4 Data Gathering

The empirical data consists of both primary and secondary material. All of the information for the American case study was collected from secondary sources such as blog posts, articles and homepages. In addition, general information was gathered from the literature presented above, for example *Startup Factories* by Miller and Bound (2011), which described the basic features of an accelerator.

The primary sources consist mainly of the interviewed accelerator representatives but also alumni startups, mentors and academicians, who are presented in Table 1. The interviews were conducted with a template based on the results of the American case study. The template was divided into two distinct parts, where the first part treated the journey of a startup through the accelerator, from gaining awareness of it until the time after demo day. It was believed that by doing interviews that followed this process, it would create a better continuity for the interviewee who would then be able to talk more freely and broadly. By following this process with all the accelerators it was then possible to compare the answers given and draw conclusions about what the accelerators prioritized. The second part contained questions regarding the organization of the accelerator, its network and also more specific questions about methods and metrics used in the program. Note that the template was used as a supporting document rather than a strict form that had to be followed. By letting the interviewed representative talk more freely, the researchers could learn about important aspects that had not been previously considered. The purpose of the interviews was to gain input that could not be found in secondary sources. It was valuable to talk to people with good knowledge about the concept and hear their points of view. The interviews also helped to validate the information that had been found on homepages and articles.

Some of the sources used in the thesis were not interviewed in person or via Skype. Most of the mentors and investors were invited to answer questions via Twitter and questionnaires were then sent to those who accepted. The templates sent to these actors were based upon findings from the interviews with accelerator representatives. They were shorter than the original templates with only a few questions that summarized the most important aspects. In these cases there was a dialogue to ensure that their response could be considered reliable.

Academicians	
Incubators	PhD Lise Aaboen
Accelerators	M.Sc student Joel Eriksson Enquist
Methodologies, Accelerators	Ass. Prof. Henrik Berglund, supervisor
Organization Theory	Senior Lecturer Jan Lindér

betaFACTORY, Oslo	
Managing Director	Brian Weisberg
Mentor	Tor Grønsund

The German Silicon Valley Accelerator, Berlin	
Vice President	Oliver Hanisch
Intern	Felix Israel

Nordic Startups, Stockholm	
CEO	Andy Cars

Springboard, Cambridge	
Managing Director	Jon Bradford
Investor/Mentor	Alex van Someren
Mentor	Alex Barrera
Mentor	Alan Moore

Startupbootcamp, Copenhagen	
Managing Director	Alex Farcet
Mentor	Eric Lagier
Startup	Archify, Max Kossatz

Startup Sauna, Helsinki	
Communications	Natalie Gaudet

Table 1, Primary Sources of Information

4.5 Validity and Reliability

During the project, the process of ensuring reliability was of great importance due to the different non-academic sources. Since much information was gathered from blogs and articles, it was vital that this kind of information could be verified. Articles from well recognized organizations and publications such as TechCrunch, Business Insider and Wired were used to the greatest possible extent. In some cases though, interesting information was found on personal blogs and posts from entrepreneurs that had gone through an accelerator program. When information from these sources was used, other sources on the same subjects were consulted in order to search for patterns and thereby judge the reliability of the information.

The use of managing directors as representatives for the European accelerators was considered to give a good reliability to the empirical study. By starting the case studies in America it was possible to increase the validity of the selection of European accelerators. The reliability of the data collected from the Internet was supported by the interviews, which also confirmed the interpretation of the accelerator concept.

Finally, an important part in validating the data was the interviews carried out with mentors and participants from the programs. By letting them answer questions formulated based on the interviews with the accelerator representatives, it was possible to investigate whether the answers correlated and if different actors had the same interpretation on the accelerator.

4.6 Reflections on the Work Process

The main complication of the work process was the lack of academic theory on the subject. Much of the basic knowledge had to be achieved by studying specific accelerators and this complicated the academic aspect of the thesis. There were also difficulties in defining the research question and purpose. The initial research question was "What makes an accelerator successful?", which turned out to be too broad to answer. To be able to answer that question, a definition of what success meant had to be established. Since the accelerators interviewed for this thesis had only been around for a maximum of three years it was too early to tell if they had become successful.

Another complication of the work process was the lack of an accepted distinction between accelerator and incubator. Some accelerators were called incubators in certain articles and it was therefore hard to see if they were relevant for this thesis. However, as the work with the thesis proceeded, more knowledge about the features of an accelerator was gained and it became possible to recognize which were relevant. When this point was reached it was also possible to distinguish some incubators that brand themselves as accelerators.

The process of finding interviewees that were connected with accelerators as mentors or investors was challenging since many of them had hectic schedules that meant that they did not have the possibility to answer our questions. This was a factor that was not recognized until the late stages of the thesis, which led to fewer responses from the stakeholders than were initially hoped for.

5 Research findings

In this chapter, case studies of eight different accelerators are presented. First, the American accelerators TechStars and Y Combinator will be presented together to showcase the most prominent accelerators. These have not been visited and all the information about them comes from secondary sources. When these were studied, many similarities between them were found. It was therefore decided that they could be presented together in the same chapter but with clearly described distinctions in those aspects that differed.

Next, the findings from the case studies of six European accelerators will be presented. The interviews allowed specific questions and follow-ups on interesting leads. The information presented under each case study will be divided into sections derived from what was deemed most interesting. There are two main sections, regarding the accelerator cycle and its structure.

5.1 Case Study of American Accelerators

In order to understand the accelerator concept, a case study of the accelerators Y Combinator and TechStars will be presented in this chapter. Both of them are well known and acknowledged and they are also located in the USA where the entrepreneurial is supposed to be the best possible. Furthermore, they have been active for several years and were therefore found suitable to study.

Figure 5, Cities where the studied American accelerators were launched

5.1.1 Background

After being in business for seven years, Y Combinator is commonly seen as the first accelerator in the world and was started in 2005 by Paul Graham, Robert Morris, Trevor Blackwell and Jessica Livingston. The purpose of Y Combinator is to help promising startups form their businesses in exchange for equity in the startup (Y Combinator 2012). David Cohen, Brad Feld, David Brown and Jared Polis founded TechStars in 2006 in Boulder, and the basic idea is that many startup

mistakes can be avoided with access to more mentorship and support. (Johnsson 2007, Moran & Valiquette 2011). Basic facts of the two accelerators are presented in Table 2.

Accelerator	TechStars	Y Combinator
Location	Boulder, Boston, New York, Seattle	Silicon Valley
Launched	2006	2005
Length of Program	3 months	3 months
Batch Size	9-12 teams	65 teams
Seed Funding per Team	$6 000 - $18 000	$11K-$20K
Equity Stake Required	6%	2-10%
Acceptance Rate	1%	3%

Table 2, TechStars and Y Combinator

5.1.2 Accelerator Cycle

This chapter describes the process that a startup goes through in its interactions with the accelerator, from becoming aware of the program to the time after Demo Day.

Awareness

Both TechStars and Y Combinator are often mentioned in business specific publications like TechCrunch. They are also very active on Twitter and TechStars has a Facebook page where they report on the operations of the accelerator. TechStars even markets itself through a reality show, where the viewers can follow the teams during their time in the accelerator. (Bloomberg 2012)

A big part of the value for these accelerators comes from their strong brands. An important reason that they have managed to build such a brand is that they distinguish themselves in different ways. TechStars has built their community around a small city and tried to establish a new business ecosystem around it. Y Combinator has had successful startups whose exits have improved their reputation. (Christiansen 2009)

Teams

Y Combinator and TechStars are popular among entrepreneurs and receive thousands of application before every cycle. In TechStars, about ten in one thousand are selected to participate while Y Combinator accepts more; the latest batch consisted of 65 startups. The initial application has the entrepreneurs fill out an online application form that describes themselves and their idea. They are also often encouraged to attach a video presentation of their team. If their application looks interesting enough they are accepted for interviews with the accelerators. (TechStars 2012, Y Combinator 2012) While TechStars are unwilling to accept competing teams into the same program, Y Combinator argues that it is impossible not to, since they accept over 60 teams. (Chapman 2012)

When the accelerators pick startups, they usually focus heavily on the team and its composition since the initial idea is likely to change in a more or less radical way

during the program (Levy 2011). Most of the startups chosen into the programs are web or mobile based but the accelerators do not completely exclude other companies. However, software based startups are more likely to fit into the program and it is highly recommended to include a skilled coder in the team. (TechStars 2012, Y Combinator 2012)

Both Y Combinator and TechStars are unlikely to accept single entrepreneurs. The reason for this is that the programs demand so much work and commitment that it is hard for one person to manage. It is also believed that a startup highly benefits from the experiences and perspectives of multiple individuals. (TechStars 2012, Y Combinator 2012)

The Program

At Y Combinator the program is run twice a year and lasts for three months. This means that the teams have to move to Silicon Valley during the program to be able to participate in events and to get access to mentoring. However, Y Combinator does not provide common work spaces for the startups, thus the interaction between the teams is limited. By working from their own chosen locations, Y Combinator claims that the startups feel more like entrepreneurs and less like employees. (Y Combinator, 2012)

The program includes weekly dinners where successful speakers, like VCs or founders of prominent tech companies are invited to hold speeches. Furthermore, these occasions enable informal networking for the startups. Besides these dinners the three months also include mentoring hours (Levy 2011). The last part of he program is the Demo Day where every startup gets the opportunity to pitch its idea to a number of VCs and business angels. Because of the great number of investors gathered, the Demo Day is closed to the general public. (Y Combinator, 2012)

TechStars have a similar framework for its program. It runs programs in Boulder, Boston, New York and Seattle at different times during the year and the programs last for three months. Participants can either work from shared office spaces or from a location of their own choice. Working side-by-side with other startups could make their experiences more social and give even more opportunities for support and input (Shontell 2011). The dinners with invited guest speakers are a common element at TechStars as well, but they are less frequent, usually two or three times a week. (TechStars 2012)

Similar to Y Combinator, the participants receive help and support from mentors during the program, and the three months end in a Demo Day where the startups have about 8-10 minutes to pitch their ideas (Shontell 2011). Since the TechStars Demo Day is not held in Silicon Valley with its huge concentration of investors, once a year it brings the most promising startups on a trip to Silicon Valley to get to meet new investors and hopefully receive further funding. (TechStars 2012)

5.1.3 Accelerator Organization

This chapter describes the organizations of the two accelerators. Key features include frameworks, startup funding, networking strategies and mentors.

Program Methodologies

After being accepted to either program participants are expected to work intensively with their ideas and bring them to their potential customers as soon as possible. One framework taught by TechStars is the Lean Startup (Reis 2009) which emphasizes finding a Minimum Viable Product (MVP) for which there is a customer base that the startup can capitalize on.

Startups in at least Y Combinator use a method called pivoting, which is part of the Lean Startup methodology. The teams are encouraged to seek feedback from customers as soon as possible and verify that they are on the right track (Y Combinator 2012). Most of them will have to make changes to their product or even change their whole idea. (Ries 2011, Levy 2011)

Financing the Startups

The amount of financing the startups receive from the accelerator is limited and is mainly meant to cover their living expenses. The startups receive $11 000 plus an additional $3 000 for each founder, up to a maximum of $20 000 from Y Combinator. Since the winter class of 2011, the angel investors Ron Conway and Yuri Milner have invested $150 000 in each startup accepted into the program. (Levy 2011)

TechStars is funded by more than 75 venture funds and angel investors and offers its teams between $6 000 and $18 000, depending on the number of founders. Upon acceptance the startup receives a $100 000 convertible debt note from a group of VCs. (Rao 2011)

In return for the money and mentorship the accelerators offer, they take equity in the company. TechStars demands 6% equity and that is a common number at Y Combinator as well, but its requirement varies between 2 and 10%. The equity stake is just a regular investment and the accelerators do not demand any positions on the boards of the startups. (TechStars 2012, Y Combinator 2012)

Additional funding is usually only available at the end of the program, on Demo Day. This is when the entrepreneurs have their best chances to come in contact with interesting VCs and other investors. They will not necessary receive funding on that particular day but it nevertheless presents possibilities for future funding. TechStars claims that more than 80% of their startups receives more funding after the program. (TechStars, 2012, Moran & Valiquette 2011)

Network

Y Combinator and TechStars accredit their alumni networks significant value. Y Combinator has more than three hundred graduated startups and they play an

important part in helping new startups in the accelerator. An alumni Demo Day is arranged prior to the investor Demo Day that provides an opportunity of receiving more feedback and advice. Even after the program the teams can get support from the alumni network and with a network of skilled entrepreneurs it is always possible to find someone who can advice. It is stated that the alumni network was not planned but rather emerged on its own. (Miller & Bound 2011)

Mentors

Y Combinator and TechStars differ significantly in how they arrange their mentor networks. Y Combinator has about ten mentors, of who seven are working full time, while TechStars have hundreds but none of them are formally employed.

At TechStars, the first month of the program is dedicated to mentor dating. The meetings with different mentors help the participants to find those that suits them well and that they want to keep working with. Because of this process, the startups at TechStars must wait a few weeks before they can focus on building their idea. Nevertheless, they have opportunities to start practicing their pitching and presentation skills right from the beginning. (Shontell 2011)

By contrast, Y Combinator has another approach. Its relatively small number of mentors is full time employed and work with many of the participants during the program. The startups can book office hours with the mentors anytime during the day, and the week before Demo Day the mentors are even available during the night. Initially, the focus is mainly on building a viable product but when Demo Day approaches there is a shift towards presentation training. (Y Combinator 2012)

5.2 Case study of European Accelerators

Six accelerators that are located in Europe have been studied for this thesis. The accelerators differ in their status ranging from not yet started to having had several cycles. Five of the accelerators were visited by the researchers to gain insight in how they are organized and structured. By visiting the accelerators it was also possible to assess parameters that are difficult to measure such as the entrepreneurial atmosphere of the different cities and how that affects the programs. The studied accelerators are, in order of appearance: German Silicon Valley Accelerator (Berlin), Springboard (Cambridge), Startupbootcamp (Copenhagen), Nordic Startups (Stockholm), betaFACTORY (Oslo) and Startup Sauna (Helsinki).

Figure 6, Accelerator Locations

5.2.1 The German Silicon Valley Accelerator[4]

The German Silicon Valley Accelerator (GSVA) is a private initiative financially supported by the German Federal Ministry of Economics and Technology (BMWi), private sponsors, partners and donors. The CEO is Dirk Kanngiesser, former chairman of the Commission of Experts for Research and Innovation. The interviewee was the Vice President Oliver Hanisch who is an entrepreneur and business developer. The purpose of the accelerator is to form a permanent bridge from Germany to Silicon Valley that facilitates the startup process. The idea is for German startups to benefit from being physically located in Silicon Valley (German Silicon Valley Accelerator 2012). In Europe it is possible to get good infrastructure in terms of office space and communications but the GSVA does not think that it is enough for companies that want to create a product or service that can compete in the global market.

Accelerator	GSVA
Location	Berlin
Launched	2012
Length of Program	2-3 months
Batch Size	6 teams
Seed Funding per Team	None
Equity Stake Required	None

Table 3, GSVA

[4] Interview conducted with Oliver Hanisch, Vice President of the GSVA. 2012-03-28

Accelerator Cycle

The GSVA does not run any ad campaigns in traditional outlets like magazines or TV-channels. This is because the GSVA is in and of itself a startup with limited financial resources to spend on ad campaigns. Instead it uses for example social media, which allows for targeted ads that can be aimed at specific groups. The channels that are most important for creating awareness among startups are personal networking, universities and Facebook. This broad marketing approach is likened to a funnel that allows them to get a large batch of applicants that it can select from.

Since the accelerator is partially funded by the German government it can only accept teams incorporated in Germany. This is because the GSVA received funding for its first cycle from the government, which in return stipulated rules for the program. However, the GSVA has other initiatives that do not require the teams to come from Germany.

> "[...] We do however have a scholarship program, meaning that a large corporation provide a scholarship to a startup that they've picked, which doesn't have to be German" - Oliver Hanisch

Teams

The GSVA is primarily concerned with the structure of the teams that apply, rather than the idea they initially present. Oliver Hanisch stressed that this mentality is aligned with the Lean Startup methodology, and asked rhetorically how many times the interviewers thought a pivot was necessary before the right concept was found.

> "What are we looking for in a team? Like, the first thing you've mentioned already: We're looking for *a team*, not a single founder." - Oliver Hanisch

The members of the team need to complement each other and it is vital that all required competences are represented in the team. However, the team is preferably more inclined towards the technical aspects of the startup and the dream candidate has strong technical expertise, according to Hanisch. As of yet, there have not been any competing teams accepted into the GSVA although Hanisch does not think that would be a problem if the situation were to arise. Since the accelerator does not take equity in the startups there would not be a conflict of interests.

Program

The GSVA is based in Berlin but the key concept is to move parts of the teams to Silicon Valley. The move provides access to a more vibrant ecosystem of startups, investors and mentors that is not yet available in Europe. Hanisch also stressed that the mentality of "thinking big" is a large part of why the GSVA moves the teams to Silicon Valley, together with the aim to connect the startups to future capital.

The program cycle lasts for ninety days and the teams get a program that is tailor made for them. The coaching that the teams receive depends on their needs and previous experience with starting and operating a business. The cost of the program

is zero for the participants although there are associated with living and traveling to the U.S.

The teams set up milestones that they want to achieve during their time in the accelerator. Not all of the teams stay for ninety days, since after 45-60 days there is an evaluation to check if the teams have reached their milestones and if they still benefit from staying in Silicon Valley. After ninety days there is another evaluation of the milestones.

The GSVA uses frameworks such as the Lean Startup and Customer Development. Hanisch pointed out that most people who are involved in the startup community have a general knowledge about these frameworks, but as far as he knows few follow them to the letter. Exactly what every startup needs is highly contextual, and therefore the frameworks discussed do not necessarily apply to every startup. The GSVA does not have a Demo Day where it showcases the teams. Instead it attends events that are beneficial for the teams and provides them with a network of VCs.

Accelerator Organization

The accelerator is currently co-funded by the German government and thus it does not take any equity in the startups. The government is only supposed to support the GSVA for as long as it takes for it to get off the ground and the plan is to become economically independent. Exactly how the private funding is to be structured is not yet determined. Hanisch referred to the preferred solution as deal flow management, where investors essentially pay on a case-by-case basis. The accelerator is run by the management team and together with one intern they handle the daily operations and contacts between Silicon Valley and Germany.

Networks and Mentors

The mentors and the business network of the GSVA are mainly recruited from the personal networks of those involved with the accelerator. Hanisch repeatedly underlined the importance of personal networks in building the business network of an accelerator. The network of the accelerator is one of the core aspects of the GSVA, and thus the engagement of the mentors is very important.

The involvement of the mentors ranges from an hour a week to working actively for whole days with the startups. The incentives of the mentors vary as well. Some mentors are thoroughly interested and somewhat altruistic, their main driving force is their curiosity and preference for working with young companies and people. Others are more interested in keeping themselves up to date on what the startup community is doing and might also be looking for potential investments. The mentors get compensated for the time they spend working with the accelerator but Hanisch asserts that these monetary compensations are merely symbolic. Hanisch explained that the mentors can be put in one of two categories: generalist mentors with insight on how to run a startup and specialist mentors with expert knowledge in certain fields such as technology and intellectual property.

Metrics

Metrics are not prioritized in the GSVA. Hanisch explained that a snapshot is taken as the startups enter the accelerator, and another one once the program is finished. Important progress is measured in sequential goals that are qualitative in nature. However, there is no common system for measuring the progress because it varies from startup to startup, depending on what their business concept is. Hanisch also remarked that KPIs are generally product-centric since they are meant to clarify how profitable a company is. Most startups do not have a product at all at this stage, and therefore most traditional measures lacks relevance.

5.2.2 Springboard[5]

Springboard is located in Cambridge, United Kingdom, and sprung out of the more traditional incubator ideaSpace. The interviewee, Managing Director and co-founder of Springboard is Jon Bradford. He previously ran another accelerator called the Difference Engine, which was closed because of lack of funding. The Difference Engine together with Y Combinator and TechStars are the primary source of inspiration for Springboard. (Springboard 2012)

Accelerator	Springboard
Location	Cambridge, London
Launched	2009
Length of Program	13 weeks
Batch Size	10 teams
Seed Funding per Team	£5 000 - £15 000
Equity Stake Required	6%
Acceptance Rate	4.5%

Table 4, Springboard

Accelerator Cycle

To attract teams to the program, Facebook and Twitter are used to broadcast new information, while blog posts create traffic. Bradford explained that they try to be modern and encourage mentors to re-tweet for increased credibility.

> "I always describe it as two parts, first you have to become aware of the program, then you have to demonstrate credibility" - Jon Bradford

Startups apply for the program online where they are required to fill in a form presenting themselves and their idea. Some questions are to be answered with a video of the team. The purpose of this is to let Springboard get a feeling for the team composition and how they could benefit from being selected to the program. It is not possible for teams with competing ideas to be accepted into the program and

[5] Skype interview conducted with John Bradford, Managing Director of Springboard, 2012-03-12

Bradford is of the opinion that it would create a bad working environment for the teams.

Teams

Most of the focus is on the team itself instead of the idea, since an idea without good execution will not get any traction. Qualities that Springboard is looking for in a team are smart people who are committed and receptive to coaching from mentors. In a presentation at How to Web 2011 in Bucharest, Bradford likened the features of a team with a quilt.

> "The notion of a quilt is that it's a functional thing that is very personal, everyone has one but different. At the end of the day there are not two teams that are the same." - Jon Bradford

In the presentation Bradford listed four features that was found in a good team: passion, dedication, diversification and adaptability. This observation was based on patterns he saw in the startups coming through accelerators. (HowToWebConf 2011)

Program

The cycle runs for three months and consists of three parts: shape, build and sell. According to Bradford all three parts are equally important and each part is approximately one month long. The initial phase focuses on the mentoring of the teams to form ideas into something that is scalable and able to generate revenue. The teams have to be physically present in either Cambridge or London during the program. Bradford stressed the importance of being on-site during the program for the teams to perform to the best of their abilities. After the initial shape process the team members start building their idea. The idea should at this stage be well understood and simple enough that they could explain it to their respective mothers.

> "The final part is to be able to articulate the idea, not only to other people in that sector, but to your mom" - Jon Bradford

Bradford thinks that being able to explain an idea in simple terms is underrated but crucial in achieving something that is viable and scalable. The last part is the sell part where the teams develop their presentation skills and their product pitch.

Springboard does not adhere to a fixed set of methods that they try to apply to all of the teams. Frameworks like Lean Startup are not actively taught to the teams but they are a part of the mentality behind the shape process. They also use Customer Development when applicable. Some teams need to quickly create a MVP while other needs help with articulating themselves, their presentation skills and selling their product.

> "I will: beg, borrow, steal ideas from any player that can benefit the teams [...] I don't believe in any single religion" - Jon Bradford

The startups pitch their ideas to potential investors; mostly VCs and business angels, one by one and about 50% of them receive funding. Bradford indicated that the closed-session strategy that Springboard uses is of utmost importance to the credibility of the accelerator. Other possible formats such as more event-like approaches were dismissed as unrealistic by Bradford.

When asked what happens immediately following the end of the program, Bradford described it as dropping the startups off a cliff, indicating that the accelerator severs its operational ties to the startups quickly once the program is over. Bradford emphasizes that the program is generally meant to put the startups in a position to raise their own funding, which means that there are no planned follow-ups or additional help available.

Accelerator Organization

There is no fixed company hierarchy other than key functions and three employees share the responsibility for the day-to-day operations. Investors pay for startups to be in the program and Springboard only takes as much equity in the startups as the founders consider prudent. There is currently no public funding and Bradford argues that if you cannot keep an accelerator running in London or Cambridge without public funding, you are doing something wrong. Since investors pay for the startups, Bradford believes that the investors are essentially paying for the service of taking the startups through the accelerator.

Mentors

Mentors are recruited to Springboard via personal networking and the level of their engagement varies. Bradford said that having mentors is a requirement for an accelerator to function and that good mentors increase the quality and credibility of the accelerator. There is essentially no minimum requirement for mentor engagement and the specifics vary from mentor to mentor. Some spend a couple of hours with a team while others spend a lot more of their time. In some cases, mentors have gone on to work for a startup after Demo Day. The mentors are not reimbursed for their involvement and Bradford said that most of the mentors are entrepreneurs themselves that are interested in what is happening at the forefront of the industry.

Metrics

When asked about how Springboard measures the progress of the startups, Bradford said:

> "A startup is not made up of a thousand metrics" - Jon Bradford

Bradford is of the opinion that metrics are not as important as building a customer base that is interested in the product. The metric that is used by Bradford is whether

the startups get early investment, which might indicate that they are on the right track.

5.2.3 Startupbootcamp[6]

Startupbootcamp is a network of accelerators with branches in Amsterdam, Berlin, Copenhagen, Dublin and Madrid. The structure of the accelerator is adopted from TechStars and applied to Europe. The accelerator featured in this study is the one located in Copenhagen.

Alex Farcet, co-founder of Startupbootcamp, stressed that Copenhagen is a suitable location for a European accelerator and described it as an attractive, international city. Naturally, the investor environment in Europe cannot be compared to that of Silicon Valley and if a team were to be accepted into Y Combinator, Farcet would urge them to accept. However, for startups not interested in going to America, Startupbootcamp is an attractive alternative.

Accelerator	Startupbootcamp
Location	Copenhagen
Launched	2010
Length of Program	3 months
Batch Size	10 teams
Seed Funding per Team	€15 000
Equity Stake Required	8%
Acceptance Rate	2.5%

Table 5, Startupbootcamp

Accelerator Cycle

According to Farcet, two thirds of the applying teams find out about Startupbootcamp online and the other third get to know about them through events, primarily Startup Weekend. The startups apply by first filling out an online application after which twenty teams are chosen to attend a Startup Weekend. This two-day event sorts out the ten best teams to be accepted into the program. The teams come from various countries around the world.

Teams

The teams selected for the program typically consist of 2-4 members. Single entrepreneurs are not accepted since the program would be too much work for one person to handle. It is important that the teams are coachable and open to new ideas. It is also vital for the teams to show persistence and to be able to keep up with a hectic pace for three months. If two teams have products that are directly competing with each other, both of them cannot be accepted. According to Farcet, the team represents 90% of the startup while the idea only represents 10%, as it is

[6] Interview conducted with Alex Farcet, Managing Director of Startupbootcamp, Copenhagen. 2012-03-19

most important that the team members know each other and can work well together. The team has to include at least one member experienced in programming.

> "The ideal team is a really really strong technical team with one guy who has the potential of becoming a really strong sales guy" - Alex Farcet.

Program

Farcet compared running a startup to running a marathon. At the beginning of the race it is important to get a good start so that the runner ends up in the forefront of the race. The accelerator is what enables the startup to get into the right position.

The program can be divided into three stages. The first third of the program is shape, when the teams spend significant time with mentors. There is much interaction from the mentors to make sure that the startups are on the right track. Startupbootcamp also arranges theme days during which mentors deliver speeches on different topics. The second phase is build where the team has to use the input in order to choose a direction. In this part the mentoring is toned down so that the team may focus on building its product. The third part is sell, which is all about Investor Day and pitching practice.

Farcet emphasizes that the word "program" can be misleading since it tends to be adjusted according to the specific needs of each startup, rather than a strict three-month plan. The program does not schedule activities more than two weeks ahead, with the exception of the Investor Day.

There are no specific methods or frameworks that all startups are supposed to use.

> "It is actually much more unstructured than you might think because the teams are at different places. It is not school"- Alex Farcet

There are however some frameworks that Farcet introduce to the teams, like *Four Steps to the Epiphany* by Steve Blank. The startups are also encouraged to use methods from *The Lean Startup* (Ries 2011) such as MVP and iterations, market studies and customer feedback. However, the startups are often familiar with these concepts and frameworks already.

The program ends with the Investor Day, which usually gathers around two hundred investors. The event starts with public presentations, where each team gets eight minutes to pitch its idea or product. Subsequently, the event continues with informal gathering exclusive for the Startupbootcamp startups and invited investors. The aim of the event is to connect the teams with VCs and angel investors. It usually takes 3-6 months after Investor Day before the teams receive additional funding.

According to Farcet, Startupbootcamp would like to engage more in the startups after Investor Day. Farcet stated that the startups hold their office spaces for another three months after the Investor Day, but they are not a part of the

accelerator. Currently, there is an alumni community, which includes an open Skype chat where they can turn to each other for help and discussions. Startupbootcamp also brings some of the startups to London or Silicon Valley with the goal of receiving further funding.

Accelerator Organization

The accelerator is run by Farcet and a couple of interns. Startupbootcamp takes an equity stake of 8% in each startup, which is just an ordinary investment strategy and Startupbootcamp does not demand any board positions in its startups. Parts of this equity are sold to investors to finance the operations of the accelerator and the funding of the teams. One program costs about €500 000 and the investors pay €50 000 each to get an equal amount of equity in all of the ten startups of the program.

> "Instead of investing in one company you are investing in ten. They are diversified, they are highly selected and they come out of Startupbootcamp accelerated so you spread your risk"- Alex Farcet.

It is estimated that it takes five to ten years until the IPO, at which point Startupbootcamp exits the companies. It remains to be seen whether this strategy is successful since the accelerator has only been operating for two years.

Network

Startupbootcamp has about eighty mentors, mainly consisting of serial entrepreneurs. The interviewed startup Archify[7], who has gone through Startupbootcamp, explained that they were accepted into seven accelerators but they chose Startupbootcamp because it provided the best mentors. Further, the mentors participate in the program voluntarily and can engage themselves in the program as much as they like. The mentors mainly advice on business development rather than technical issues and are supposed to meet with each team at least once.

According to Farcet the most important incentives for mentors to participate are that they consider the interaction with startups stimulating and the possibility to pay it forward. In addition, the mentors receive positive exposure and they gain insight as to what is happening in the startup community, sometimes for investment purposes. It is therefore a good opportunity to find teams and people to collaborate with, while the network of other mentors is valuable in and of itself. Farcet described three types of mentors:

[7] Max Kossatz, co-founder of Archify. Interview (2012-04-25)

Posterboys
Put their names on a poster and you get a personal endorsement regardless of their level of engagement. The CTO of Spotify is an example of a Posterboy.

Comets
These mentors deliver a motivational speech or share a story about how they sold their company, but they do not engage in the startups.

Big brothers and sisters
These mentors are involved in the every day operations, providing the startups support and guidance.

The mentors are recruited through headhunting and personal networks. Farcet spent about half a year headhunting the first 10-20 mentors, who according to him were the hardest to find as well as the most important since they set the tone for the program. Currently, there are many potential mentors but unless they are extraordinary, Startupbootcamp generally turns them down. The investor network is obtained in similar a fashion to the mentor counterpart. While most of the investors come from the geographical vicinity, the accelerator continuously strives to expand its investor network. At present, Startupbootcamp has about 1500 investors in their VC database.

Metrics
Startupbootcamp does not employ a system of quantitative measurement because different teams need different metrics and focuses on soft values instead. Every team has weekly follow-up meetings with Farcet, where they determine the status of the startup together. In this way, Farcet keeps track of the progress of the startups as well as the direction in which they are heading.

> "I watch what is going on every day and I know exactly who is doing well and who isn't" - Alex Farcet

Startupbootcamp does measure how the startups have managed after the program. It keeps track of how many have failed, how many have managed to get seed funding and how many have secured angel investment.

5.2.4 Nordic Startups[8]
The Nordic Startups was founded by Andy Cars in Stockholm in 2011 but has as of yet no program operational. However, the frameworks and operative principles for the program are well defined. Nordic Startups is mainly inspired by recognized accelerators, such as Y Combinator, TechStars and Springboard.

[8] Interview conducted with Andy Cars, CEO of Nordic Startups, 2012-03-12

Accelerator	Nordic Startups
Location	Stockholm
Launched	2011
Length of Program	3 months
Batch Size	10 teams (flexible)
Seed Funding per Team	To be decided
Equity Stake Required	8%

Table 6, Nordic Startups

Accelerator Cycle

Cars explains the importance of an active networking strategy, including marketing and awareness of the accelerator. The main marketing tool is its homepage, besides the perpetual networking. It was launched in December 2011 and includes information about the program and provides application forms. Since the homepage was launched, about two hundred startups have applied and in addition, nearly one hundred potential mentors have offered their services.

Teams

The formal application process is not clearly defined, though its main characteristics are much the same as other studied accelerators. The main assessment and selection are done in cooperation between the staff of the accelerator and mentors specialized in the fields of the ideas presented by the applicants. Further, Cars implied that the team composition is an important aspect during the selection and the quality of the teams could potentially be more important to evaluate than the actual idea they present. Cars explained that in the best of worlds the selection process ends in consensus among mentors and staff about which teams to accept. The size of the first batch will depend on the initial financing solution, but in the future the quality of the applying teams will be an important factor. Thus, six to twelve teams seem to be reasonable according to Cars, but the ideal size is believed to be ten teams per batch.

Program

Since the accelerator has yet to start a cycle, the properties and scheduling of the program are still theoretical and inspired by prominent accelerators. The program cycle is planned to be three months, high paced, and including product development and business model evaluation through daily contact with the accelerator staff. The development work is to be done in alignment with the Lean Startup concept, with frequent interactions between the startup and potential customers. Furthermore, Cars implied that using these methods could improve marketing efforts of the accelerator because of their diffusion within the startup community.

The Demo Day is meant to be the final presentation of the product and business model, as well as the end of the program. Since the amount of startups is growing, investors are not able to keep up with information about presumptive investment objects according to Cars. Therefore, the goal for investors is expected to be a

presentation of interesting investment objects that have gone through a due diligence process. In addition, since startups are by their nature risky investments, Cars believed that future investors are likely to consist mainly of VCs because of their risk profile. He further suggested a pre-presentation as a rehearsal before Demo Day. Hopefully, the startups and investors eventually connect during the Demo Day, and that finishes one cycle of Nordic Startups. Although the accelerator is planned to initially take an equity stake in every startup, the ownership philosophy is to be passive and to exit after approximately three years.

Accelerator Organization

Cars speculates that the ideal accelerator staff consists of 2-3 staff members, primarily coordinating the teams and mentors. The model is defined as two three-month batches per year, with approximately ten teams in each. Nordic Startups takes an equity stake when a team enters the program in exchange for participation. However, the teams should be offered some form of initial funding but the specific amount is not yet determined.

Networks and Mentors

Cars believes that the mentors will act as the main value adders of the program. Therefore, the contact between the teams, mentors and the accelerator staff is of fundamental importance and the selection of mentors is considered to be vital. Cars asserted that the people involved in the accelerator program must have hands-on experiences and be up-to-date on entrepreneurial trends. In other words, mentors with experience of innovation, startup companies and knowledge in the current industry are preferred over academicians.

Cars presented the perspective of mentoring where the accelerator program acts as a startup movement detector. The number of upcoming startups is increasing and therefore the industry is interested in screening the movements. In a perfect world, the best teams and most interesting ideas are accepted into the accelerator program, and thus a contributing mentor can overview the business without having to scan startups individually.

5.2.5 betaFACTORY[9]

Accelerator	betaFACTORY
Location	Oslo
Launched	2011
Length of Program	3 months
Batch Size	5 teams
Seed Funding per Team	€5 000 - €15 000
Equity Stake Required	6-8%
Acceptance Rate	17%

Table 7, betaFACTORY

At the time of the interview with the Brian Weisberg, founder of the betaFACTORY, the accelerator was about to conducting a pilot program, aiming to test the accelerator model in Oslo. The reason for starting an accelerator in Oslo was that Norway lacked an innovation centre, according to Weisberg. Since there are no other accelerators in Norway Weisberg studied Startupbootcamp in Copenhagen, among others. betaFACTORY offers the teams office space located in a creative environment close to Aker Brygge. The accelerator is co-located in a building that also houses other small companies focused on creative businesses.

Accelerator Cycle

Most of the teams applied after being personally referenced to betaFACTORY by mentors or investors. Mentors that have met interesting teams have also directed them towards the accelerator.

Teams

The five teams that were accepted to the pilot program were all selected based on interviews with accelerator representatives, investors and other stakeholders. Four of them were from Norway while the fifth came from Estonia. Their ideas were all considered to have potential, but the most important part in the selection was the team itself since they had to be prepared to iterate their ideas. According to Weisberg, betaFACTORY does not accept single entrepreneurs since they rarely possess all of the required skills. Weisberg further argued that a good team should have both technical and business skills since betaFACTORY wants their teams to be company builders.

Program

The low number of teams in the program enables extensive interaction with each team and the possibility to customize the program to the needs of each participant. Therefore there is no clear structure of the program.

[9] Interview conducted with Brian Weisberg, Managing Director of betaFACTORY, 2012-03-23

On the first day of the program, Weisberg sends a memo on what to include in a proper pitch, which makes the teams aware of what they need to know by the end of the program. He then uses this memo to point out what the teams need to do and what tests they need to run to validate their hypothesis. Further, a list of required reading is included, mainly to prevent an over-emphasis on product development. Other topics that the teams need to inform themselves about are how to validate a business model, iteration and testing, and improving operational efficiency. Weisberg stressed that it is harder to build business relations and retailer networks than to design a product.

The mentors only meet with one or two teams in order to be able to focus on details. The goal is to have about four to five mentors per team and for the teams to meet with each of those mentors on a weekly basis. Weisberg directs the mentors so that each startup receives the most suitable mentor. He emphasized that he functions as a filter, only presenting mentors to startups that are interesting to the respective mentor.

At the end of the program a Demo Day is arranged, which is a small event since there are only five teams. One of the main sponsors of the accelerator runs the largest angel investor network in Norway. Together with the angel investor network, betaFACTORY decides which startups to present to the network members. The possibility to present the idea in this way exposes the startup to about two hundred angel investors. In addition, a road show is also planned, where the teams pitch for a small number of investors at different locations. Weisberg insisted that the Demo Day did not present the startups with a make or brake situation.

After the program, the teams are supposed to be able to get by their own. Weisberg explained that when he contacted investors, most of them thought of betaFACTORY as an incubator. This was problematic since incubators have a bad reputation among those he came into contact with. According to Weisberg, these incubators are known for unserious business practices where they invite startups to their offices merely to increase the real estate value. The fact that betaFACTORY rents its offices and interacts with the startups for only a few months were therefore important factors in convincing the investors of its credibility, argued Weisberg.

Accelerator Organization

Investments in the accelerator are used to maintain the program and cover living expenses for the teams. Following the end of the program, betaFACTORY has the possibility to sell its equity stake to one of its sponsors, a company that specializes in portfolios of small investments. Weisberg refers to this as a single purpose entity model and speculated that while it works for now, betaFACTORY will likely change the model as the accelerator iterates its business.

Metrics

Weisberg said that he wants to be deliberate in how he introduces the teams to metrics. The accelerator is sponsored by Schibsted, a company that can provide the teams with ad space for free. However, Weisberg wants the teams to understand that interpreting the feedback and results from ads is difficult and challenges them to vary their model in order to assess what lies outside the control of the startups.

> "I want the teams at Demo Day to be able to show: here are the three drivers for our business. Our initial assumption was that 1% of people do this and when we released we found that 0.5% of people do that and we were able to get up to 1.3%, so that is even better. If I were an investor I would look at that and say these guys really get it, they understand what it takes to get there" - Brian Weisberg

Network

According to Weisberg, the access to experienced entrepreneurs is limited in Oslo because the entrepreneurial community is weak. Weisberg has nevertheless been able to build a mentor network partly by recruiting skilled people from Norwegian corporations.

Weisberg takes an active part in preparing the startups for the mentor meetings to ensure that the meetings will be meaningful. The mentors participate without compensation and Weisberg stressed that it is important that the mentors feel that their work is personally rewarding. Therefore, he usually evaluates the meetings with the mentors in order get their view. Many of the mentors are VCs and according to Weisberg they are open with the fact that their job is to monitor the startup community, thus essentially doing two jobs simultaneously.

> "The investors say: It is my job to do due diligence in all these companies so I meet with them anyway." - Brian Weisberg

According to Weisberg, the VC industry is not that vibrant in Oslo; there are about five firms that betaFACTORY is in contact with and the teams have already met them before Demo Day. Furthermore, many of the teams will end up raising capital not through VCs, but rather through corporate partnerships.

5.2.6 Startup Sauna[10]

The Startup Sauna is an accelerator program sprung from Aalto Entrepreneurship Society (Aaltoes), which is an entrepreneurship community at Aalto University. Startup Sauna is based at Aalto Venture Garage, a co-working space for entrepreneurs. It is located in Espoo, just outside Helsinki, in one of the university campuses.

[10] Interview conducted with Natalie Gaudet, Communications at Aalto Venture Garage and Startup Sauna, 2012-03-13

The Startup Sauna ran its first program in the spring of 2010 and is currently underway running its fifth program. It claims to work with open source seed acceleration, which means that the accelerator is very open about everything that it does according to Natalie Gaudet, Communications at Aalto Venture Garage and the Startup Sauna. The program is completely free of charge and the accelerator does not take an equity stake in its participating startups.

> "Open source, you say? Startup Sauna believes that seed acceleration should be every great early stage startups' right! Monetization happens somewhere else along the way." – Startup Sauna, homepage 2012

Accelerator	The Startup Sauna
Location	Helsinki
Launched	2010
Length of Program	7 weeks
Batch Size	15 teams
Seed Funding per Team	€1 500
Equity Stake Required	None
Acceptance Rate	7%

Table 8, The Startup Sauna

Accelerator Cycle

The accelerator cycle starts with the startup becoming aware of the accelerator. According to Gaudet, the take-up area for Startup Sauna is mostly Northern Europe, the Baltics and Russia, as the startup community in Finland is not regarded as sufficient to support seed accelerators on its own.

Teams

There are two ways of getting into the program, either by the so-called Warmups or by an online application. The Warmups are held two months before each program in approximately ten different cities in Northern Europe, the Baltics and Russia. The accelerator team tours these locations and brings its coaches along.

The Warmup is a one-day event where about 10-40 startups pitch their products or ideas. The best startups receive an invitation to the Startup Sauna. The Warmups are held together with a local partner, usually a university or local entrepreneurship community that is in charge of all marketing of the event.

It is always the coaches that evaluate the ideas and teams from the Warmups and applications. The assessment is based on the following three criteria:

1. Is the idea feasible?
2. Is it scalable?
3. Is it the right team?

> "Ideas are cheap, you can get many ideas, but it is the team that executes them" - Natalie Gaudet

Program

The program consists of seven intensive weeks, six of which are spent at the Aalto Venture Garage and one in Silicon Valley. The teams are expected to live in Helsinki and work full time at Aalto Venture Garage during the program. (Startup Sauna 2012)

Coaches join the startups in about three sessions a week focusing on lectures covering all aspects of the startup process. Moreover, they arrange workshops and individual coaching. When there are no planned sessions, the teams are encouraged to reach out to the coaches on their own.

Even though the accelerator takes no equity stake and while the program is free, the pressure is still on the teams to deliver. There are two checkpoints throughout the program, one after two weeks and a second one after four weeks. At the checkpoints the coaches evaluate the performance of each startup and decide whether they are to remain in the program or not.

> "If you can't last the Sauna, you can't last the [startup] life" - Natalie Gaudet

The Startup Sauna has a so called "kick-the-shit-out"-session every Friday where it measures progress, what the teams have been doing for the past week, their main challenges and what they are going to deliver next week.

After the second checkpoint about half of the teams of each batch gets selected to go to Silicon Valley for the last week of the program. Requirements to go are a commitment to working hard and a clear idea of how the team would benefit from going to the U.S. The team also needs to have a potential market in America. In Silicon Valley the teams meet with coaches and early-stage investors, are exposed to the media and eventually pitch their products at a Demo Day.

The program ends in a Demo Day where the teams demonstrate their products in front of an audience of 500-1000 people. The winner is awarded with initial funding and office space, while the most promising teams will be invited to an investor breakfast where the teams meet with some top-tier early-stage investors.

Accelerator Organization

Aalto Venture Garage and Startup Sauna have four full time employees who are running the operations, communications and networking. The Startup Sauna is non-profit and is funded by Aalto University, Aalto Center for Entrepreneurship and the Finnish Funding Agency for Technology and Innovation.

Networks and Mentors

The coaches of the Startup Sauna program are vital. The sessions and workshops are provided by the accelerator's network of coaches, which consists of serial entrepreneurs and investors. In contrast to the term mentoring, which principally was interpreted as passive support, the word coaching carries a more active meaning. Furthermore, the word "mentoring" has negative connotations in the Finnish language and all in all Gaudet was very insistent on using "coaching" instead.

> "We don't mentor - we coach" – Startup Sauna, homepage 2012

The recruited coaches are top names in the Finnish entrepreneurship community. For instance, Gaudet mentioned Peter Vesterbacka from Rovio, creator of Angry Birds as one of the Startup Sauna coaches. Altogether, the Sauna incorporates approximately twenty coaches. The Sauna tries to create the same type of pay it forward culture found in Silicon Valley which was described as the reason coaches choose to be a part of the program.

5.3 Summary of Empirical Findings

Through the study of the European accelerators, the interview template has been answered in various ways and marginal as well as substantial differences have been observed. Further, the interviewees have been able to discuss their opinions more freely in contrast to the study of the American accelerators, where only secondary sources have been used. Therefore, the material collected from the interviews includes more detailed observations. Nevertheless, the analysis will compare and contrast the findings from all case studies. However, in order to summarize the basic information about the studied accelerators, Table 9 contains the key facts.

Accelerator	Launched	Batch Size	Length (days)
Y Combinator	2005	65	90
TechStars	2007	10	90
GSVA	2012	6	45-90
Springboard	2009	10	90
Startupbootcamp	2010	10	90
Nordic Startups	2011	10	90
betaFACTORY	2011	5	90
Startup Sauna	2010	15	49

	Acceptance Rate	Equity Stake Required	Seed Funding
Y Combinator	3%	2-10%	$11K-$20K
TechStars	1%	6%	$6K-$18K
GSVA	-	0	0
Springboard	4.5%	6%	£5K - £15K
Startupbootcamp	2.5%	8%	€15 000
Nordic startups	-	8%	not decided
betaFACTORY	-	6-8%	€5K - €15K
Startup Sauna	7%	0	€1 500

Table 9, Summary of Basic Information

6 Analysis

The case studies point to several aspects that need to be compared and contrasted among the studied accelerators as well as with the theory. The analysis will be done through three main perspectives that have been derived from the empirical study and theory. These perspectives present different aspects of the accelerators and will be used to answer the research question.

The strategy of the analysis is to first present an external perspective in form of the stakeholders of the accelerator including startups, mentors, investors and society and how they benefit from participating in the network of the accelerator. This means that the knowledge of the surroundings of an accelerator can form a base for the next section, which focuses on the organizational aspects of the accelerator. Finally, the last perspective will describe the internal process by outlining the steps that a startup goes through.

These three perspectives are considered the most important in order to understand an accelerator, since they taken together provide a comprehensible picture of the accelerator concept. It will also aid the researchers in the process of defining an accelerator. The sequential order in which they are presented is also important, since it follows a logical structure of first focusing on the external parts and then the internal processes.

6.1 Stakeholder Network

Nearly all of the accelerator representatives argued or implied that the network of mentors, investors and startups surrounding the accelerator is of great importance. Bradford even argued that an accelerator without a network is not a viable business model. Furthermore, the empirical study suggests that the startups, investors and mentors are the most important components of the network.

In order to organize the analysis, the three actors in the network have been identified through a stakeholder perspective, which is meant to clarify how they contribute to, and benefit from the accelerator program. Seen as stakeholders, they all have mutual interest in the accelerator and need to co-operate to benefit from participating. Further, society at large is affected by the operations and outcome of the accelerator.

6.1.1 Startups

It is natural to begin the discussion on the stakeholder perspective by looking at the startups. According to the case studies, Miller and Bound (2011) and Wu (2011) startups are seemingly the main beneficiaries of the accelerator. The program is meant to aid the startups in developing their business concept and connect them to investors in order to secure additional funding once the program is over. Christiansen (2009) concludes that the most important aspect of the accelerator program from the

startup's point of view is the connection to future capital, a view that is supported by Hanisch and Cars.

On the other hand, the Startup Sauna representative Gaudet as well as the startup Archify representative Kossatz[11], former participant in the Startupbootcamp, considers the relation between startups and mentors as most important to the startup. Throughout the program, startups and mentors connect, which may turn out to be essential for the startups' ability to become a profitable company. An interaction between startups and mentors can be seen as the education provided by the accelerator for the startup. Achieving the same development path is probably harder for a startup not participating in the accelerator program, without access to the mentor network provided.

To summarize, according to the interviewed representatives of the accelerators, there are two advantages of joining an accelerator that are important. First, the fact that the program can offer connections to future capital is of significant importance. Second, the access to the mentor network makes it possible for the team members in the startup to increase their human capital.

6.1.2 Investors

As previously stated, the main incentive for startups to take part in an accelerator program is the connection to a network of investors and mentors. In order to provide startups with this service, the accelerator must entice investors to be an active part of the network. Obviously, accelerators need to attract investors to their network in order to provide the desired value to the startups. Conversely, investors have an interest in presumptive future investment objects. In this way the investors become a natural part of the network and thus a stakeholder to the accelerator.

There is naturally a certain variation in preferred size and risk tolerance of investments among the investors, and not all investors find the business proposition of the accelerators suitable. Since the accelerators focus on startups with low development costs according to Miller & Bound (2011), the size of investments desired by startups tend to be smaller than most institutional investors are interested in. Rather, Bradford presents VCs and angel investors as typical investors of post-accelerator startups.

In the wake of new technology development together with cost reduction for startups, new ideas and products are more likely to become commercialized (Blank 2005, Miller & Bound 2011, Ries 2011). One important consequence of this development is according to Cars that the spectrum of possible investment objects has become unforeseeable. Since all accelerators participating in the study use a competitive application process, it can be argued that the accelerator functions as a filter for investors. In other words, the quality of post-accelerator startups is arguably higher

[11] Max Kossatz, co-founder of Archify. Interview 2012-04-25

and therefore more interesting to investors. The interviewees of Nordic Startups, Startupbootcamp and betaFactory highlight the fact that the accelerator provides investors with due diligence on potential investment objects.

In conclusion, investors can be considered as stakeholders in the accelerator. Throughout the accelerator program, the product and business model of the startup becomes more refined. After completing the program the startups are presented as more attractive investment objects than they would have been without participating in the program. The conclusion is that maybe the single most important part of the accelerator's operations is to provide attractive investment opportunities to investors.

6.1.3 Mentors

The third actor in the stakeholder network is the mentor. As a natural part of the education that enhances the human capital within the startups (Wu, 2011) and because of their entrepreneurial expertise, they are the primary value-adders of the accelerator program according to Bradford and Farcet among others. The interview with Kossatz[12] shows that implicitly, well known mentors can bring great value to an accelerator in the form of marketing and awareness and thus attract the most appropriate startups. As a consequence, by helping to recruit the best startups the mentors will eventually promote the ambition of the accelerator to meet the investor expectations, namely well prepared startups.

So far, it seems that the mentors are at a disadvantage in the stakeholder interaction, where it contributes to the accelerator to a considerable degree but without obvious compensation. According to the empirical study mentors often participate without, or in the case of the GSVA, for a symbolic compensation, see table 10. There is however, one notable deviance from this norm; Y Combinator contracts mentors as full time employees. Although all of the informers argue that the main incentive for mentors to participate is not monetary but rather altruistic, the case of Y Combinator shows that this statement is not necessarily true.

Many of the accelerators, such as Springboard and the Startup Sauna, argue in favor of the altruistic approach. They present a culture of pay it forward found in Silicon Valley, which they try to create in their own accelerator. The pay it forward culture is based on the ambition and will of experienced entrepreneurs to help create a better ecosystem of entrepreneurship. However, while the pay it forward argument is used to explain the incentives of the mentors as altruistic, the accelerator representatives Cars and Farcet suggest that there might be other types of incentives. For instance, many of the mentors have an active interest in keeping up to date with the latest developments in the startup community, which is facilitated by participating in an accelerator program according to Cars and Farcet. Bradford reveals that there have been cases where mentors active in the Springboard program have gone on to work for the mentored startup after Demo Day. Thus, while many accelerators like to

[12] Max Kossatz, co-founder of Archify. Interview 2012-04-25

stress the altruistic nature of the involvement of the mentors, this study shows that reason for participating is sometimes less altruistic and more because of personal gain.

Accelerator	Mentor's Payment
Y Combinator	employed mentors
TechStars	none
Startupbootcamp	none
betaFACTORY	none
GSVA	symbolic
Startup Sauna	none
Springboard	none
Nordic Startups	none

Table 10, Compensation to Mentors

6.1.4 Society

In a larger context, societies and governments benefit from a flourishing and viable innovation system, where companies can grow and jobs be created. It is also desirable to foster a positive environment for entrepreneurs and innovators supporting new ideas, which can contribute to technology development and the rise of future startups. In this way, society at large has an interest in the accelerator and thus represents the outermost layer of the stakeholder network. The notion that society takes an active interest in the accelerator concept is supported by the fact that the Finnish and the German governments fund two of the studied accelerators, the Startup Sauna and the GSVA respectively.

Furthermore, the nature of the entrepreneurial community surrounding the accelerator arguably represents its contribution to a more socially sustainable society since there seems to be a significant degree of altruism involved. At Springboard, the pay it forward mentality was described as the key factor in explaining the interest of the mentors. While it is true to say that the study shows that there are other factors involved, it is fairly obvious that the possibility of contributing to the success of next generation of entrepreneurs is important to many of the mentors. The fact that the same general idea was presented by both Startup Sauna and Startupbootcamp shows that there is a certain diffusion of this mentality in the startup community, which primarily benefits the startups themselves but by extension also society at large since it creates a more innovation friendly business climate.

6.1.5 Key Conclusions

Startups benefit from the accelerator program in that they gain access to future capital and business networks, since long term funding is important to any startup. Furthermore, the startup gains access to the entrepreneurial network of the accelerator, including the expertise of the mentors. These two advantages for the startup arguably constitute the most important part in clarifying the role of the startup in the stakeholder network.

Because of the startups' interest in future capital, the investors play a fundamental role in attracting startups to the accelerator. Conversely, the accelerator presents the investors with qualified investment suggestions. In this way the interaction between the investors and the accelerator is mutually defined and thus furthers the understanding of the accelerator. It could be argued that the investor-accelerator relationship where the accelerator provides a service to the investor is the most important relationship in the stakeholder network of the accelerator.

Through the accelerator program, the mentors provide the entrepreneurial expertise needed to make the startups attractive to future capital. Initially the incentive structure of the mentors was somewhat opaque and the motive seemed to be almost completely altruistic. The study shows however, that the incentive structure is not as uniform as it might seem and that there are several possible reasons why a mentor would want to participate in an accelerator program.

Taken together, these results of the analysis clearly indicate that the interaction in the stakeholder network is exceptionally important when it comes to defining the accelerator. The exchange of knowledge between mentors and startups as well as the multi layered accelerator-mentor relation show the complexity and importance of the stakeholder relations. The most important relation among those discussed however, is the accelerator-investor. Therefore the defining characteristic of an accelerator from the stakeholder perspective is that it performs a service for investors where it produces attractive investment objects. The discussed relations are conceptualized in Figure 7.

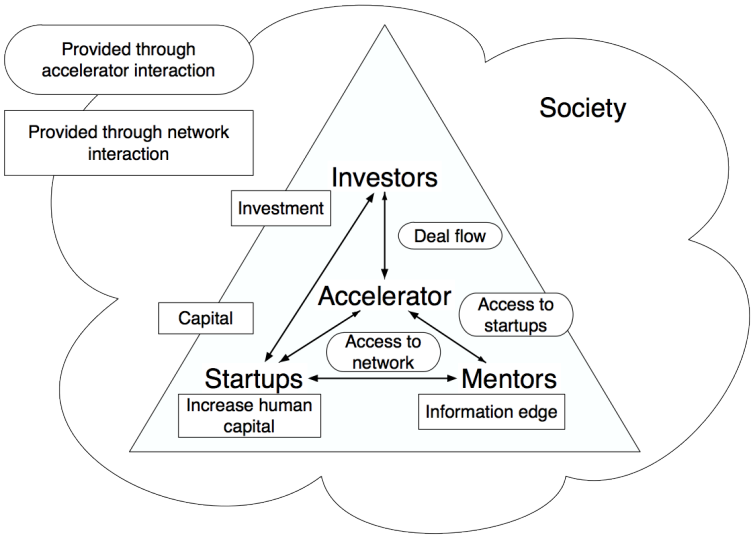


Figure 7, Conceptual Sketch of the Stakeholder Network

6.2 The Accelerator Structure

The next focus of the analysis is the structure of the accelerator. The business philosophies used in the operations do differ throughout the study, although there are similarities. In order to support the organization of the analysis, three perspectives

have been defined on the basis of the common findings from the empirical study. Those perspectives are Methodologies, Organization and Business Model.

6.2.1 Methodologies

The empirical study clearly shows that the type of systematic, customer centric and iterative startup processes put forward by Ries (2011) and Blank (2005) are widely known and recognized in the accelerator community. However, while essentially all of the studied accelerators utilize these management principles to some extent, the usage is not as uniform or extensive as might be expected from studying the literature and arguments of the proponents of the methodologies. One can definitely say that concepts such as Lean Startup and Customer Development are important as a part of the education provided by the accelerators, but it is important to note that they are business tools among others.

Brian Weisberg of betaFACTORY was arguably most positive towards a more active usage of the discussed methodologies, in particular Customer Development. Weisberg argues that the Customer Development is vital to prevent an overemphasis on product development.

The representatives of the GSVA, Springboard and Startupbootcamp by contrast, imply that the suggested methodologies are by no means used as the primary guidance for startup development, but useful as a mindset. Interestingly, a majority of the interviewees in the study claim that the composition of the teams is more relevant than the actual idea they present during the application process. The reasoning is that throughout the program, all teams go through several iterations and changes of focus. This approach implies that the accelerator representatives are well aware of the cornerstones within the Lean Startup concept but that they consider its usage to be fairly elementary, almost to the point of being trivial.

However, Cars of Nordic Startups stresses that using these well known methods can be applicable in marketing. While the concepts provide a believable mark of quality and recognition, the accelerator gains promotion among startups and investor communities. This attitude is interesting since it implies that advertising the usage of these concepts is more important than actually using them.

In addition, the fact that the Lean Startup methodology in particular is less prominent in the studied accelerators than was initially hypothesized, means that a discussion on economic sustainability in the accelerator context might be proportionally less relevant. Ries (2009) generally describes the Lean Startup as a way of managing startups more efficiently, where reduction of wasteful efforts has an important part to play alongside such concepts as iterative development and pivoting. However, the studied accelerators are more inclined towards discussing the development related aspects and less so towards the waste reducing ones. This is obviously not to say that the accelerators are not interested in running a lean operation but rather that it was not emphasized by the accelerator representatives.

Finally, there seems to be few formal methods used to measure the progress of the teams. Most of the interviewed representatives, such as Farcet and Hanisch, argue that it is hard to find common metrics that suits each team equally well, while Weisberg indicates the importance of teaching the relevance of metrics. Furthermore, the GSVA uses a system of measurement called milestones, as presented by Hanisch. However, he was quick to point out that this system was far from formalized enough to be considered as metrics in the usual sense of the word. The argument was that while it is meant to provide information about the status of the startups, it is rare to see the same measurement being used for multiple startups.

6.2.2 Location and Organization of the Accelerator

The location of the accelerator has a noticeable impact on how the accelerators choose to organize themselves. Depending on the local entrepreneurial community and capital markets, different ways of structuring the accelerator was presented. Ranging from working with mentors from large companies to sending the teams to a more vibrant community on Silicon Valley, the accelerators have chosen different ways of dealing with the issue. Since the qualities of the investor and entrepreneur communities differ between geographical locations, it follows that the choice of location impacts the accelerator's ability to create and maintain the network.

One aspect that was re-occurring across essentially all interviewed accelerators was the size of the organization. The accelerators are usually composed of the founders, a few employees, and the mentors. However the mentors are usually not formally employed and do not receive wage from the accelerator. The main tasks of the staff in the Springboard and Startup Sauna are to maintain the network of mentors and investors, coordinate the day-to-day operations, marketing and administration. With the exception of the GSVA, that pay their mentors a symbolic compensation, none of the interviewed accelerators pay their mentors for their services. This is noteworthy since the mentor network is arguably the primary value-adding entity of the accelerator.

6.2.3 Business Model

In the beginning of the research of accelerators it was unclear what their financial motives for operating the business were. It was first thought that the business model was financed by initial capital injections and from that point the cash flow came from exits in the startups. However during the process of doing the European case studies it became clear that this was not the case.

The researchers have identified different ways of financing the accelerators and how they manage the equity stake in the startups. Table 11 presents the differences found. The first distinction is who provides the necessary capital for the accelerator to operate, three providers have been identified: private investors, governments and academic funding. The equity taken in the startups depends on the provider of capital.

Accelerator	Provider of Capital	Equity Stake Required	Seed Funding	Convertible Debt Note
Y Combinator	Private funding	2 - 10%	$11K - $20K	$150 000
TechStars	Private funding	6%	$6K - $18K	$100 000
Startupbootcamp	Private funding	8%	€15 000	none
betaFACTORY	Private funding	6 - 8%	€5K - €15K	none
GSVA	Government funding	0%	0	none
Startup Sauna	Academic funding	0%	€1 500	none
Springboard	Private funding	6%	£5K - £15K	none
Nordic Startups	No funding	8%	Not decided	none

Table 11, Funding

All of the accelerators that operate on private funding take equity in the startups accepted into the program. The equity can then be divided between those funding the program and a small part for the accelerator organization. Startupbootcamp and betaFACTORY offers investors to invest in all startups accepted in one program, before the program has started. The batching of companies makes the investments fairly large, which makes it a more interesting investment for VCs. As discussed in the network analysis the motive for investors to finance the accelerator is to generate a continuous deal flow of potential investments.

When the accelerator makes an exit in the startup varies. Startupbootcamp waits until the startup gets acquired and has therefore not done any exits and Springboard when asked said that that they do not have an exit strategy. The reason for this is that the majority of the equity stake in the startups is owned by the private investors funding the program; their strategy might vary depending on the goals set for return on investment.

In conclusion, most of the studied European accelerators are funded by investors that want to improve their deal flow by increasing the number of potential investments. For this service the accelerators receive funding for their day-to-day operations. The equity stake taken in the startups is an entrance fee for gaining access to the services that the accelerator provides. The equity is in some cases split between the accelerator organization and the investors funding the program. While no European accelerator beside Startupbootcamp said that they had an explicit plan for when to make an exit it can be assumed that they will follow the lead of others and make an exit when a startup reaches a valuation that is considered high enough.

6.2.4 Key Conclusions

The analysis shows that the methods that initially started the research for this thesis are not as important as was initially believed, although the findings indicate that the frameworks are widely known and used. The interviewees have given various answers to how they implement the methods, from an integrated part of the education, to supporting tools. It is concluded that even though concepts such as the Lean Startup are widespread, they are usually considered to be too fundamental to be noteworthy. In addition, the reason why the usage of metrics is not spread among the studied

accelerators is that traditional measuring methods apply mainly to companies that are already generating revenue.

The choice of location impacts the possibility to create an investor network and the amount of acceptable mentors. The company organization of the accelerators is quite similar, with a few employees running the daily operations and a strong network of value adding mentors.

Regarding the business model of the accelerators, one can conclude that there is no consistent model. The analysis provides a number of suggested approaches, and the strategies for financing the programs do differ. Most commonly though are the model including private funding of the program on a project basis. Thus the feature of Miller and Bound (2011) regarding pre-seed investment holds for most of the studied accelerators. However, there are accelerators partly or completely financed by public funders, such as universities or government institutions. Finally, since the studied accelerators are recently started, the results of the choice of business model have to be investigated further in the future.

6.3 The Accelerator Cycle

Based on the research findings, distinct phases of a startup's journey through the accelerator have been identified. These phases are Awareness, Application, Program, Demo Day and Post Demo Day. By investigating the phases that a startup goes through it is possible to gain knowledge about what defines an accelerator. The accelerator cycle is conceptualized in Figure 8.

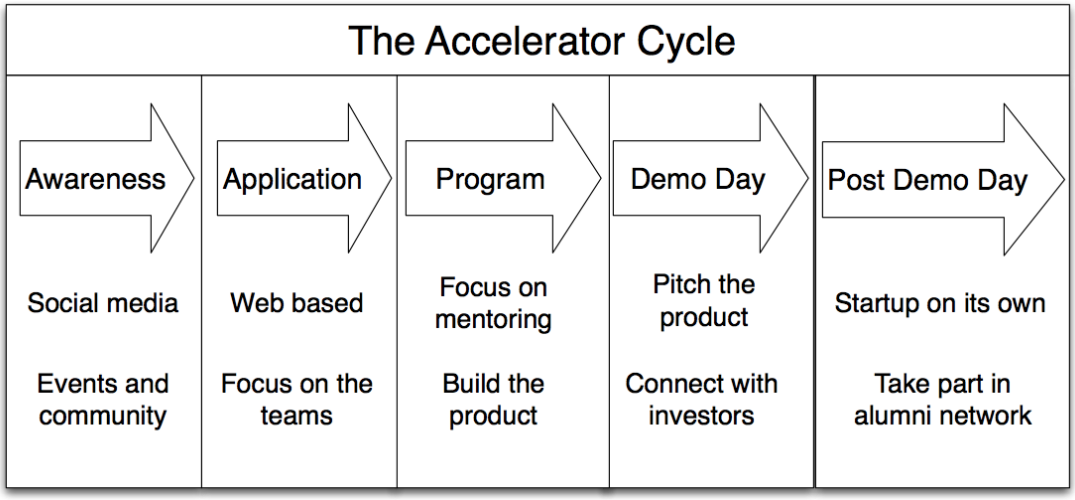


Figure 8, The Accelerator Cycle

6.3.1 Awareness

The awareness phase refers to the time when a team becomes aware of the existence of an accelerator. The success of the accelerator in this phase depends on the strength of its brand and how it markets itself.

The case of the GSVA shows that many accelerators are in a startup phase themselves and cannot afford expensive marketing campaigns. It is therefore common for accelerators to use social media such as Facebook and Twitter to increase the knowledge about them. According to Bradford at Springboard, frequent blog posts together with social media can help to create traffic and attract entrepreneurs to the accelerator homepages. A potential problem with this marketing strategy is that it can attract the wrong teams and not the top startups they are looking for. It can therefore be advantageous to use mentors' and investors' network and personal references when the teams are selected. Another way is to use events such as startup weekends to market the accelerator and meet potential teams. An accelerator with connections to a university, such as the Startup Sauna, can also benefit from the academic network.

Maybe the most efficient way to become better known is to recruit acknowledged and experienced mentors that can attract more entrepreneurs. The interviewed startup Archify[13] claims that it chose Startupbootcamp because of the quality of its mentors. Startupbootcamp also explained that it uses some mentors just for marketing. Furthermore, Springboard stated that good mentors is a proof that the accelerator is credible and of high quality.

To summarize, while it is true to say that the marketing methods of the studied accelerators do differ somewhat, one can conclude that social media is important and widely used. The reason for this is that it allows the accelerators to reach their target groups efficiently and since many of the accelerators are startups themselves they might not have the resources to conduct more traditional marketing. Moreover, the perceived quality of the mentor network is important in determining the attractiveness of the accelerators.

6.3.2 Application

In the application phase the startups apply for the program, usually by filling out an online application and sometimes attaching a video presentation as in the case of Springboard. According to Bradford, a video can enable a more thorough presentation of the team and help the accelerator evaluate the composition of the team. The last part of the application process consists of interviews with the accelerator representatives.

The number of applications is often very high, sometimes as high as two thousand applicants to sixty spots as in the case of Y Combinator. To accept single entrepreneurs is rare because a startup is too much work for just one person. TechStars, Y Combinator and Startupbootcamp stress that a requirement is that at least one team member must possess technical skills. Farcet claims that the programs are mainly meant to help with business related questions and it would be hard to develop a product in just three months if no one in the team was a skilled coder. It is

[13] Max Kossatz, co-founder of Archify. Interview 2012-04-25

also a considerable advantage to work with web- or mobile-based startups. Those technologies are likely to fit the accelerator model best since the program only lasts for a short period and changes in the product have to be done quickly. According to Miller and Bound (2011), web-based technologies can be developed rapidly and are usually much cheaper to develop than other products (Miller & Bound 2011).

A common factor in a majority of the studied accelerators is that when they select their teams, they do not value their ideas as highly as the team itself. This is because the idea will change considerably due to iteration but the team has to be strong in order to manage the startup. According to Springboard, features that are valued in a team are passion, dedication, diversification and adaptability.

The accelerators have varying opinions on accepting competing teams. Most of them are unwilling to; if two or more teams are competing it is best to choose the one that seems to be the strongest. The GSVA however, does not consider competing teams to be an issue, probably because it does not take any equity stake in the startups. Y Combinator is another exception, since they take on so many teams that it is almost impossible to avoid overlap.

Since the acceptance rate is low, one can conclude that the competitiveness as presented by Miller and Bound (2011) is very much present in the studied accelerators. Moreover, the study shows that most accelerators prioritize a solid team rather than an inspired idea, since the process is meant to be iterative. Furthermore, a team is strongly favored above a single founder for a variety of reasons, which also supports the characteristics presented by Miller and Bound (2011).

6.3.3 Program

During this phase the startups focus on developing their products, continuously supported by mentors. The programs are limited to about three months, except for that of the Startup Sauna, which is seven weeks long. The short time-span encourages the participants to sustain rapid pace and provides them with a clear set of targets, which is considered an advantage by many startups. (Miller & Bound 2011)

A model presented by Springboard and Startupbootcamp is the shape-build-sell program. The first month is dedicated to shaping the idea and interacting with mentors. The mentors help the teams refine their ideas and give them guidance on how to build scalable businesses. When the startup has decided how to proceed, the building step starts and the focus is on developing the product. The last step, sell, is important for the future chances of the startup of getting funding. This is when the pitching and presentation skills are refined in order to make investors interested.

Many accelerators, such as TechStars, Springboard and Startup Sauna require their teams to live in the city where the program is held. This enables more active participation and increases the teams' opportunities to interact with each other. Moreover, some accelerators think that the startups should work at the designated

office spaces, in order to benefit as much as possible from peer support. Y Combinator however, claims that it is better to let the startups work where they please to stay more focused on their product and encourage an entrepreneurial spirit.

Most of the accelerators do not adhere to a strict program but rather provide a model suitable to each startup, because the startups have various needs and differ in how far they have managed to develop their product. Therefore, it is hard to provide a program consisting entirely of lectures since it will not benefit all of the teams simultaneously. Many of the studied accelerators do however arrange different kinds of events or theme days where experienced guest speakers are invited to lecture on common subjects concerning all teams.

All studied accelerators have program cycles lasting for only a few intensive months, making them closely aligned with the ideas of Miller and Bound (2011) in this respect. All of the studied accelerators use a general program structure where the focus goes from developing the product idea towards the eventual sales pitch. There are however, no two accelerators that use the same program, and no two startups receive the same treatment within an accelerator. Finally, most of the studied accelerators believe that there are positive effects of peer support by letting the startups interact with each other during the program. Thus the last feature of an accelerator as put forward by Miller and Bound (2011) is substantiated by the research findings.

6.3.4 Demo Day

The program usually ends with a Demo Day, which gives the startups an opportunity to meet with investors. This event can attract hundreds of investors, mostly consisting of VCs and business angels. The number of investors that show up depends partly on the location. Copenhagen has a much easier time attracting investors than for example Oslo, because of its proximity to the continent. Throughout the study, several accelerator representatives have clarified that this day is very important for the startup and maybe equally valuable to the investors. It is a great opportunity to listen to many product pitches and the startups that are pitching are in a way approved as worthy of investment.

A common model for the day, utilized for instance by Startupbootcamp and TechStars, is that each team gets a set time frame of up to ten minutes to pitch their product. Parts of the Demo Day are often closed to the general public and sometimes the entire event is off-limits unless you are invited. If the day were open to everyone, the gathering of investors would undoubtedly attract other startups that could compete with the accelerator teams for the investors' attention. The purpose of the day is mainly for the startups to receive additional funding, according to Bradford.

Startupsbootcamp explains that it is unusual for teams to raise money immediately on that particular day, especially in Europe where investors seems to be a bit more cautious than in the USA. They do however have great chances of making important contacts that later will lead to further funding.

6.3.5 Post Demo Day

The last phase involves the time after demo day. The startup has now finished the program and has to manage on its own. This is a major difference between an accelerator and an incubator, especially with regards to the incentives of the organization. Both Farcet and Weisberg explained that some incubators have essentially turned into rental services of office space whose goal is to keep the company in the incubator.

The amount of engagement of the accelerator in a certain startup after the program is over depends mostly on how much equity is retained. For example, the Startup Sauna does not take any equity at all and therefore has no tangible incentives for continuing to help the startup. If the accelerator retains equity however, it is in the interest of the accelerator to help the startup raise money and thus improve the value of its stake, although many of the studied accelerators have pointed out that their ownership is essentially passive.

6.3.6 Key Conclusions

The most important aspects of the accelerator cycle seem to be selecting the right teams, provide tailor made programs including experienced mentors and preparing the teams for Demo Day. To be able to get a large sample of good teams to choose from, the accelerator has to market itself in a way that reaches its target groups, perhaps with the help of well known mentors or by joining events. The selection process is carried out carefully, focusing primarily on the composition of the teams.

The specifics of the program differ from one accelerator to another. They are however all keen to provide their teams with a high quality program adapted to each team so that they are able to improve their ideas or products. To succeed with this, they need to have experienced and skilled mentors, who understand the needs of every startup.

Furthermore, the preparation for Demo Day is an important part of the program. Many of the teams are technically focused and need to practice their presentation skills to be able to make investors interested in their product. After Demo day, the involvement of the accelerator ceases but the startups have hopefully improved their businesses to the point that they may succeed on their own.

Finally, the investigation clearly shows that all of the characteristics of an accelerator suggested by Miller and Bound (2011) are supported by the research findings and one can thus conclude that they are widely applicable in the accelerator context. Furthermore, since all studied accelerators conform to the general structure of the program cycle presented in this study, one can consider the characteristics of an accelerator in combination with these findings to be a framework for how to operate an accelerator.

7 Conclusion and Sensitivity Analysis

The analysis has produced several conclusions that, when taken together, answer the research question: What defines a seed accelerator and which aspects are useful for Chalmers Innovation? First of all, it can be concluded that the research findings in this thesis support Miller's and Bound's (2011) characterization of an accelerator. Four of their five points are supported by all of the accelerators and the remaining point, regarding seed-investment in exchange for equity, holds for everyone except the GSVA and Startup Sauna. Moreover, the study has resulted in additional material that complements the previously known features.

An accelerator relies on three main stakeholders: startups, investors and mentors. This network is crucial to the accelerator and the absence of any single one of these stakeholders arguably makes it impossible for the accelerator to function. It was concluded that the most important stakeholder is the investor for whom the accelerator provides a service. This stakeholder relation might be less important in the case of Chalmers Innovation, because of its seed fund. However, Chalmers Innovation needs to appreciate that the stakeholder network as a whole is a defining characteristic and vital to an accelerator.

It has been concluded that parts of the methods such as Lean Startup and Customer Development are widely practiced, especially working iteratively and testing the product early. There is however no single methodology used by all accelerators and furthermore a defining factor is that these concepts are often considered to be fundamental to the point of being trivial. Because of this, Chalmers Innovation needs to be able to implement these frameworks but must be aware that they do not necessarily provide a blueprint for an accelerator. In addition, the business model varies and there is no common model that all accelerators use. Further research in this subject is probably necessary and this study is unable to provide Chalmers Innovation with specific advice on this issue.

The process that the startups go through during the accelerator cycle is present in some form in all studied accelerators. In this way, the accelerator cycle as put forth in the study can be considered a framework that clearly defines the most important phases. By using that framework, Chalmers Innovation can identify the parts that are applicable to their current work processes when working with startups.

7.1 Sensitivity Analysis

In order to assess the reliability of this report, potential weaknesses in the data collected need to be illuminated. More specifically, the question is whether a change of sources would have effected the conclusion. As previously mentioned, there is little academic literature available and as a consequence future definitions might differ from the conclusions of this study. Finally, since the concept of accelerators is constantly developing it is unlikely that a study conducted at a later point in time would arrive at the same conclusion.

7.1.1 Sources

The secondary data from non-academic sources such as publications, websites of accelerators and blog posts was used to provide an overview of the accelerator as an entity. The understanding of accelerators was continuously improved as more information about the subject was gathered and patterns started to emerge. The sources for secondary data could have an impact on the conclusions since information from less well-known sources might have been missed during the initial phases of the thesis. The process of gathering information was limited to recognized sources since the understanding of accelerators was initially limited.

Since the main component of the thesis is the case studies, the way they were conducted could have an impact on the outcome. The research design was based on the fact that the researchers had limited knowledge on the subject and that the academic theory was limited. This also meant that the qualitative approach in which common themes were identified and triangulated (Eisenhardt 1989) was considered the most appropriate method. However, if the group had had more knowledge about accelerators when starting the thesis a different method might have been utilized. The qualitative approach implies that the researchers conducting the study influences the conclusion and people with a different background might have reached another conclusion.

Since the case studies are highly dependent on the information put forth by the interviewee it is important to note that the views of representatives from the same accelerator might differ. However this was an issue that was limited by first researching the studied accelerators by using secondary information and talking with other people connected to the accelerator and compare answers. The chapter on research method further elaborates on this issue.

The thesis outlook was from the accelerator's perspective, which meant that most of the primary data came from accelerator representatives. The lack of primary data on startups and investors might lead to the group drawing conclusions that apply from the accelerators point of view but that lack the nuance that startups and investors would have added.

7.1.2 Choices

An important choice was to limit the visited accelerators to ones located in Europe. This has an impact on the number of observed accelerators, which led to that the conclusion becoming general. Had there been more visited accelerators in both U.S. and Europe it would have been possible to say more about the regional differences between America and Europe and between countries in Europe. This was however a choice based on time constraints and the limited funding available. Section 4.3 Sample Selection further elaborates on this.

Another choice was to mainly seek out the founders and managing directors in the accelerators. This is because it was the persons that the group thought would have the best understanding of the accelerator organization and day-to-day operations as opposed to focus on interviewing the stakeholders in the accelerator. However their view might not correlate exactly with that of the stakeholders. A study with the focus on the stakeholders would give an even greater understanding of their motives for working with an accelerator. This choice is also described in section 4.4 Data Gathering.

8 Discussion

Accelerators and Sustainability

Interestingly, while it was initially believed that out of the three sustainability perspectives outlined by Elkington (1998) economic sustainability would be most prominent in the accelerator context, it turns out that the social perspective might be more relevant. The reason for this is that accelerators are clearly contributing to a more socially sustainable society by employing an altruistic network of mentors to educate and help to develop the ideas of the next generation of entrepreneurs. The entrepreneurial community is thus playing a larger part in society by bridging the gap between established businesses and up and coming ideas that might otherwise not have been able to grow. Furthermore, the community facilitates the diffusion of knowledge of startup and entrepreneurial principles, which is arguably in everyone's interest since it helps in creating jobs and developing new technology.

Conversely, the management principles and frameworks discussed in this thesis in general and Lean Startup specifically, proved to be less relevant than expected in arguing that the accelerator promotes economic sustainability.

Finally, while sustainable technology as an accelerator specialty sounds very appealing in theory, the virtually completely exclusive focus on software-based startups might mean that this is not a feasible development as of right now. As the accelerator concept becomes more established this might change, but at present further research is required.

The Possibility of Starting an Accelerator in Gothenburg

The accelerator concept is a growing phenomenon spreading from and has as of today established a foothold in parts of Europe. By looking at some of the more prominent ones in the U.S. it can be argued that the model is economically viable. Since Chalmers Innovation has shown interest in the phenomenon, it is relevant to discuss whether Gothenburg is a suitable location for an accelerator.

Clearly, three main stakeholders need to be present at least in some form for the accelerator to function: startups, mentors and investors. Whether or not there are sufficiently many potentially teams in the area is debatable but the presence of an institute of technology is obviously a good sign. However, potential startups must be interested in entrepreneurship and willing to consider starting their own businesses. Further, it is vital to attract experienced and well-known entrepreneurs as mentors. Although Sweden has a history of successfully growing companies and entrepreneurs, it might be a bit of a stretch to say that Gothenburg has a strong entrepreneurial community. Finally, a network of investors needs to be present. The Chalmers Innovation Seed Fund can play an important role but one must consider that the VC industry is substantially smaller in Europe than in America.

Since Copenhagen, Oslo and Helsinki have their own accelerators, it is arguably possible to sustain accelerator businesses in northern Europe. As an investor searching for seed investment objects, it would be more convenient to contribute as a sponsor to an already existing accelerator. In addition, Startupbootcamp has managed to build a good reputation and it might be hard for an accelerator close to Copenhagen to compete. However, since Nordic Startups has not launched its program, there is till room for accelerators in Sweden. Therefore, by creating an entrepreneurial platform in Sweden, one will substantially contribute to the national and regional ecosystem of innovation.

If Gothenburg is indeed suitable for an accelerator, the next question is who to head the initiative. Chalmers Innovation has experiences of creating technology-based companies and has the financial structure to be able to initiate an accelerator. Furthermore, the Springcamp project is a suitable springboard for developing a complete accelerator program. In addition, Chalmers Innovation presumably benefits from its reputation in order to attract startups as well as mentors. However, Chalmers Innovation is recognized primarily as an incubator, which may be a disadvantage in this context. A solution to this would be to deploy the accelerator under a different name as a separate entity. Another option would be to act as an investor or supporter to some other entity starting an accelerator, such as a student initiative like in the case of the Startup Sauna. It is further possible to consider collaborations with already existing accelerators in order to learn more about the concept and to connect to existing networks of mentors and investors.

Finally, because of the increasing amount of accelerators world wide, one must carefully investigate the risks connected associated with being a late mover. There are several indications that an accelerator located in Gothenburg has the prerequisites needed. However, if an increasing number of accelerators operate in the future, new programs must be aware of how they chose to differentiate themselves in order to attract the best startups.

9 Further Research

This thesis points to various areas for further research:

1. How are the accelerator programs actually performing?

Since most accelerators are still very young, it is hard to measure their performance or success. When the accelerators have been around for some years, there will probably be more material to judge from. It could then be interesting to investigate teams that went through an accelerator and how many of that got acquired or raised funding.

2. Which of the different business models accelerators utilize is the most viable?

The business models used by accelerators differ but the choice of model probably has a great impact on the objectives of the accelerator. It could therefore be interesting to more thoroughly investigate the different business models found. Is the concept profitable in the long run? Are there alternative ways to finance the business?

3. With the rapidly growing number of accelerators, are we seeing a seed accelerator bubble?

There are already four accelerators in Scandinavia and the question is how many can reasonably be expected to be viable. The concept of acceleration is seemingly very fashionable in the entrepreneurial community at the moment but since it has yet to be proven to be successful, are we seeing a seed accelerator bubble?

4. Could accelerators specialize in sustainability technology and produce environmentally sustainable startups?

It seems clear from the presented literature that accelerators might stand to gain from specializing in creating green-green businesses with sustainability technology as the core business area. However, none of the studied accelerators mentioned ideas or startups that are testing such business concepts and software-oriented products are currently dominating the accelerator scene. Since the accelerator concept is still new, this might be an interesting area for further research.

10 Bibliography

Aaboen, L. (2006) *Incubators and New Technology-based Firms: a Resource-based View of Development.* Gothenburg: Chalmers University of Technology, Department of Technology, Management and Economics

Aaboen, L. (2008) *Incubators and Incubation: Resources and Activities in Relation to Different Actors.* Gothenburg: Chalmers University of Technology, Department of Technology, Management and Economics

Arundale, K (2010) *Guide to Private Equity.* London: BVCA

Berglund, H. (2011) *Early stage venture capital investing: comparing California and Scandinavia.* Gothenburg: Chalmers University of Technology, Department of Technology, Management and Economics, Center for Business Innovation

Blank, S. (2005) The Four Steps to the Epiphany: Successful Strategies for Products that Win. 3rd ed. Published in the U.S. by Cafepress.com

Bloomberg (2012) *TechStars Episode 6*
http://www.bloomberg.com/tv/shows/TechStars (2012-04-30)

Borella, P. (2012) Startup Sauna: Accelerating Startups from Northern Europe & Russia. Espoo: Startup Sauna

Chapman, L. (2012) *'Pivoting' Pays Off for Tech Entrepreneurs*,
http://online.wsj.com/article/SB10001424052702303592404577364171598999252.html?KEYWORDS=pivot (2012-04-30)

Chalmers Innovation (2012) www.chalmersinnovation.com (2012-05-02)

Christiansen, J. D., (2009) *Copying Y Combinator: A Framework for developing Seed Accelerator Programmes.* Cambridge: University of Cambridge. (MBA Dissertation at Judge Business School and Jesus College)

Eisenhardt, K. M. (1989) *Building Theories from Case Study Researsch.* The Academy of Management Review, vol. 14, no. 4, p. 532

Elkington J. (1998) Cannibals with Forks: The Triple Bottom Line of 21st Century Business. New Society Publishers (September 1, 1998)

Freimann J., Marxen S., Schick H. (2002) *Sustainability Issues for Start-up Entrepreneurs.* University of Kassel, Germany

German Silicon Valley Accelerator (2012) *About Our Program.* http://germanaccelerator.com/about-our-program/ (2012-02-20)

Gilani, A. (2011) *Incubators in US and Europe: Speed and Scale in Capital Formation.* http://www.slideshare.net/dgiluz/accellerators-in-us-and-europe (2012-05-02)

Graham, P. (2012) *What happens at Y Combinator,* ycombinator.com http://ycombinator.com/atyc.html (2012-04-28)

Grimaldi, R., Grandi, A. (2005) Business Incubators and New Venture Creation: An Assessment of Incubating Models. Bologna: Technovation, vol. 25, pp. 111-121

HowToWebConf (2011) *How to Web 2011: Jon Bradford - The perfect team: it's a patchwork quilt* [Youtube] http://www.youtube.com/watch?v=C7UaTzeBGa0 (2012-02-15)

Johnsson, K. (2007) *How TechStars was born,* Denverpost, May 20th, http://www.denverpost.com/business/ci_5933462 (2012-04-23)

Levy, S. (2011) *Y Combinator is bootcamp for startups,* Wired magazine, May 17th http://www.wired.com/magazine/2011/05/ff_ycombinator/all/1 (2012-04-23)

Lewis, D. A., Harper-Anderson, A., Molnar, L. A. (2011) *Incubating Success. Incubation Best Practices That Lead to Successful New Ventures.* Published in the U.S. by the U.S. Department of Commerce Economic Development Administration

Miller, P., Bound, K. (2011) The Startup Factories: The rise of accelerator programmes to support new technology ventures. London: NESTA (SF/72)

Moran, F. and Valiquette, L. (2011) *Accelerated: TechStars harnesses the power of mentorship,* Francis Moran & associates, June 6th, http://francis-moran.com/index.php/marketing-strategy/accelerated-TechStars-harnesses-the-power-of-mentorship/ (2012-04-23)

Osterwalder, A., Pigneur, Y. (2010) Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Chichester: WILEY

Privco (2012) *Private Equity & Venture Capital* http://www.privco.com/knowledge-bank/private-equity-and-venture-capital (2012-03-10)

Rao, L. (2011) *Startup incubator TechStars raises $24M, increases funding for each company by $100K,* Techcrunch, September 21st

http://techcrunch.com/2011/09/21/startup-incubator-TechStars-raises-24m-increases-funding-for-each-company-by-100k/ (2012-04-23)

Reis, E (2009) *TechStars brings the Lean Startup to Boulder.* http://www.startuplessonslearned.com/2009/07/TechStars-brings-lean-startup-to.html (2012-05-02)

Ries, E. (2011) *The Lean Startup.* New York: Crown Publishing Group

Schaper M. (2010) Understaning the Green Entrepreneur. In *Making Ecopreneurs: Developing Sustainable Entrepreneurship.* ed Schaper M. pp 28-41. Farnham, Surrey, UK: Ashgate Publishing Group

Shontell, A. (2011) *5 major differences between TechStars and Y Combinator,* Business insider, June 1st http://articles.businessinsider.com/2011-06-01/tech/29958902_1_y-combinator-mentors-accelerator (2012-04-23)

Startup Sauna (2012) www.startupsauna.com (2012-05-02)

TechStars (2012) www.techstars.com (2012-04-28)

Vinnova - Verket för innovationssystem. (2008). Forskning och innovation för hållbar tillväxt - VINNOVAs förslag till forsknings- & innovationsstrategi 2009 - 2012. www.vinnova.se/sv/Aktuellt--publicerat/Publikationer/Produkter/Forskning-och-innovation-for-hallbar-tillvaxt2 (2011-04-22)

Wallén, G. (1996) *Vetenskapsteori och forskningsmetodik,* Lund: Studentlitteratur AB.

Wu, A. (2011) *Do Startup Accelerators Delvier Value? The Economics of Creating Companies*, MIT Entrepreneurship Review, August 14th & 22nd, http://miter.mit.edu/article/do-startup-accelerators-deliver-value-economics-creating-companies-part-1-2 (2012-04-22)

Y Combinator (2012) www.ycombinator.com (2012-04-28)

Appendix A. Definitions

Angel Investor - private investor who invests in companies in exchange for equity or sometimes for seats on the company board. Very similar to a Venture capitalists but generally they invest in an earlier phase.

B2B - Business to business

B2C - Business to consumer

Business Angel - see Angel Investor

Business Incubator - an organization that provides entrepreneurs with support, such as facilities and financing, until they have developed their product and can stand on their own.

Business Insider – a U.S. business/entertainment news website.

Chalmers Innovation - an incubator connected to Chalmers University of Technology. Founded in 1997 with the purpose of supporting the development of new technology ideas.

Cost of Capital - a company's cost of its funds or the return a shareholder requires on a portfolio of all the company's existing securities.

Customer Development - a framework developed by Steve Blank which encourage entrepreneurs to focus more on finding customers than building products.

Deal Flow Management – business strategy that focus on customer relations in order to have a continuous flow of business opportunities.

Demo Day - Event at the end of an accelerator program where startups pitch to investors

Dot-com bubble – economic crisis in the early 2000s, following from the over estimation of upcoming IT-focused companies and technologies.

Due Diligence - professional evaluation of a company

Entrepreneur - a person who sets up a business or businesses, taking own financial risks in the hope of profit.

Exit point - When an investor gets out of a company it has invested in.

Human Capital - the knowledge, competencies and personal attributes that can contribute to producing economic value.

Investor Day - see Demo Day.

IPO - Initial public offering

KPI - key performance indicator

Lean Startup - concept developed by Eric Ries. Encourages a build-measure-learn process and uses methods such as pivot and MVP. Relies on Customer Development.

MVP - minimum viable product, a term within the lean startup concept. The most basic version of a product you can launch and still attract customers.

Pay It Forward - describes the concept of asking that a good deed be repaid by having it done for others instead.

Pivot - A structured course correction designed to test a new fundamental hypothesis about the product, strategy, and engine of growth.

Product Development - the process of developing products in a satisfactory way.

ROI - return on investment

Seed accelerator - similar to a Business Incubator but more focused on mentoring. Houses the startups a shorter period of time, usually up to 6 month.

Seed capital - the capital used in the starting phase of a business. Could often come from friends or family.

Signaling – Announcing own credibility

Silicon Valley - Area in Northern California that is home to many of the world's largest technology companies. Accounts for one third of all the Venture Capital investments in the USA.

Startup - a human institution designed to create new products and services under condition of extreme uncertainty.

TechCrunch - a web publication that offers technology news and analysis, as well as profiles of startup companies, products, and websites

Venture Capitalist (VC) - professional investors with goals of high return on investments for its stakeholders. Usually invest in early stage companies.

Wired - Magazine and on-line periodical reporting on technology, economics and politics.

Appendix B. Interview template

Interview Structure

- My Life As a Startup
- Organizational Structure of *the accelerator*
- Quick Summary and End of Interview

"My Life As a Startup"
We would like you to describe the process that a start up goes through from becoming aware of Springboard to "post demo day". We have organized this around five aspects:

• Awareness

How do you market *the accelerator*?
Facebook, Twitter, LinkedIn?
Do you have any employees responsible for marketing?
Who's event are most interesting in a marketing perspective, your own or others?

Which channels are the most important?
Which is the most effective?
Pitch differences?

Geographical scope, focus England, EU, RoW?
Possible trans-national issues
Differences in entrepreneurial quality in different regions of the world?
Geographical location: pros and cons?

• Application and selection
What are you looking for in a team?
What don't you like to see in a team?
How important is their idea?
We get the impression that you think the team composition and personality is more important than the idea and concept?
What is interesting to listen for in their pitch?

What are the key "features?"
What distinguishes an especially good team?
Competence, experience, social skills?

Can competing teams be accepted?
Specific reasons?
Where do you draw the line on whether two ideas compete?

• Program
General outline of the program?

Location for activities?
Do the teams live in your city?
Would it work if the participants were geographically dispersed?
Dinners? Guest speakers?
Difference between other noted accelerators?
How do you help the teams get started?
Involvement from mentors and the accelerator?

Is the Alumni network part of *the accelerator*?
What's your role in the alumni network, spider in the web?
Who's responsible?

Mentors, what are their incentives?
Non-monetary incentives?
Do mentors recruit promising members to their own companies?
Can mentors take equity before demo day?

Economy
Cost of participation?
Salary for participation?
Equity taken in the teams?
Cost structure?
Number of employees?

• Demo Day
What happens during Demo day?
Who's invited?
Scope of event?
Are there any aspects of the *accelerator's* Demo day that differs from other accelerators?

What happens immediately following the end of the program?
Smooth or rough transition?

• Post Demo Day
What's the level of engagement of *the accelerator* after Demo Day?
As an investor in the companies do you take part of their progress after accelerator?
Stakeholder perspective?

Follow-ups?

What's the involvement of mentors after demo day?

Organizational Structure of *the accelerator*

After the walkthrough of the program, we would like to know a bit more about the accelerator itself. By asking about the organization specifically, we hope to answer any questions left unanswered and gain valuable insight into *the accelerator*.

Where did the idea of starting an accelerator come from?

• Methods/frameworks used

Lean startup?

Applied both to startups and the accelerator?

Lean startup lectures?

How do you plan iteration, pivot and MVP?

Customer development?

Focus on developing customer base rather than product?

Blank; do you use the framework specifically?

Additional frameworks?

• Metrics for startups in the program

How do you measure the progress of the startups?

How do you ensure progress if you don't measure?

Do you encourage the startups to use Flurry or similar solutions?

Key Performance Indicators?

Elaborate on KPI?

KPI strategy, balanced Scorecard etc?

What's your take on measurability?

• Business model

What's the company structure?

How do you handle cash flow?

What's the conditions imposed upon the accelerator by the stakeholders?

Big funding at start of cycle or continuous capital injection?

How do investors ensure that the accelerator delivers?

When do you plan on making an exit in the startups?

What are the exit conditions?

Exit strategy?

• Networks/Mentors

What's the level of commitment expected from mentors?

Tell us about the variance? Concrete examples?

How do you recruit mentors?

How do you build your VC network?