

# The Lean Startup Method A golden ticket to success or a vision killer?

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DIVISION OF INNOVATION ENGINEERING | DEPARTMENT OF DESIGN SCIENCES FACULTY OF ENGINEERING LTH | LUND UNIVERSITY 2017

**MASTER THESIS** 



# The lean startup method

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# **Abstract**

This thesis aims to investigate the advantages and limitations of the lean startup method. Eric Ries published the book The Lean Startup in 2011 and it quickly became popular among entrepreneurs and business developers. However, there is little research on the lean startup method as of today, which has inspired the authors of this thesis to investigate the significance and application of the method further.

In order to answer the research question a qualitative, exploratory and abductive methodology approach was deemed suitable. In-depth semi-structured interviews were chosen as data collection method and a total of 10 interviews were conducted with six entrepreneurs, two business developers and two investors. A literature review was conducted in order to give the reader a thorough understanding of the lean startup method and its relation to other theories within the same field of study.

The findings show that the lean startup method advocates a sound entrepreneurial mindset and it provides a great set of tools and hands-on recommendations that can help startups understand how to build and measure success. However, the findings also show that the method might not be suited for all types of companies, which is something Eric Ries clearly claims in his book. Instead it seems as if it can have a negative effect on the long-term planning of the startup, be hard to apply for high-tech companies and even be discouraging toward visionary cases of radical innovation. The entrepreneurs are advised to analyze the purpose and vision of their company before deciding on what aspects to apply from the method and what to ignore.

**Keywords:** The Lean Startup, Advantages and Limitations, Zero to One, Customer development, Lean, Eric Ries, startup, business model, business development, entrepreneurship

# Sammanfattning

Syftet med den här studien är att undersöka fördelarna och nackdelarna med lean startup-metoden. 2011 publicerade Eric Ries The Lean Startup och boken spreds snabbt bland affärsutvecklare och entreprenörer. I dagsläget finns dock få studier gjorda på lean startup-metoden, vilket har inspirerat författarna till den här uppsatsen att vidare undersöka betydelsen och tillämpningen av metoden vidare.

För att svara på frågeställningen så har en kvalitativ, explorativ och abduktiv forskningsansats bedömts vara lämplig. Semistrukturerade och djupgående intervjuer har använts för datainsamling och totalt intervjuades tio personer där sex var entreprenörer, två affärsutvecklare och två var investerare. En litteraturstudie gjordes även med syfte att ge läsaren en grundlig förståelse för lean startup-metoden i förhållande till andra teorier inom samma område.

Resultaten visar att lean startup-metoden förespråkar ett vettigt entreprenöriellt tankesätt och den tillhandahåller en bra uppsättning verktyg och praktiska rekommendationer som kan hjälpa startups att förstå hur de ska bygga och mäta framgång. Resultaten i den här studien visar dock också att metoden antagligen inte är lämpad för alla sorters företag, vilket är något som Eric Ries hävdar i sin bok. Istället verkar det som att den har en negativ effekt på startups förmåga att planera långsiktigt och att den kan vara svår att tillämpa för företag som jobbar med högteknologiska produkter. Dessutom verkar det som att den har en nedslående effekt på visionära entreprenörer som tillhandahåller radikala innovationer. Entreprenörerna rekommenderas att först analysera syftet och visionen med sitt företag innan de väljer om de vill applicera delar från leanmodellen eller inte.

**Nyckelord:** The Lean Startup, fördelar och nackdelar, kundutveckling, Zero to One, Lean, Eric Ries, startup, affärsmodeller, affärsutveckling, entreprenörskap

# Acknowledgements

In this master thesis in-depth interviews have been conducted with six entrepreneurs, two business developers and two investors, all based in Stockholm or Malmö, Sweden. We wish to give a special thanks to them for taking their valuable time to meet us and share their insights and stories. It has been a pleasure to listen and learn from their experiences and we have gained insights not just for this master thesis but also for our own coming career as entrepreneurs.

We would also like to take the opportunity to thank our supervisor Malin Olander Roese. We highly appreciate the support and guidance she has given us throughout this project and the faith she has shown in our capabilities. She, with her forceful personality and sharp intellect, has come to be a source of inspiration to the both of us and we hope to remain in contact with her and receive her guidance throughout our adventures ahead.

Stockholm, May 2017

Louise Kullmar and Inanna Lallerstedt

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# Vocabulary

BMC - Business model canvas. One-page template that defines a business model with the help of nine different building blocks.

Incremental innovation - an innovation that mainly improves previous versions of a product, for example with a better design or new features. In general the risk of incremental innovation is considered low, especially compared to the risk of radical innovation but the reward is also smaller.

KPI - Key Performance Indicator. The metrics that are important when analyzing how a company is doing. These can differ from company to company depending on what industry they are in and what kind of business model they have.

The lean startup method - The methodology was coined in Eric Ries' book The Lean Startup, released in 2011. It refers to a way of working, in e.g. startups where resources are scarce, in order to become successful with as little waste of time and money as possible.

MVP - Minimum Viable Product. A beta version of a product, i.e. a product that is not yet fully developed but has the least amount of features for the product to still be functional.

Radical innovation - an innovation that is completely new and will affect the market it is a part of with large impact. This can also be referred to as disruptive innovation and is generally associated with a high risk of failure but also high reward if it succeeds.

# 1 Introduction

The introduction chapter aims to give the reader a background to the field of research in order to understand both why the study has been conducted and why it can be considered to be relevant. The purpose and aim of the study is presented, followed by the research question and the delimitations.

## 1.1 Background

In 2011 Eric Ries published the book The Lean Startup, where he advocates an approach to startups where as little time and resources as possible are wasted. Ries wanted to create a method for starting a company that could reduce the risk of failure based on his own experiences from starting several companies. By using a structured process the entrepreneur can quickly discover if his or her idea is durable or if it needs to be changed or pivoted into a new direction. If the idea is not durable Ries means that it is better for the entrepreneur to realize this fast, instead of wasting resources, such as time and money, trying to create something that the customer does not want in the first place. In order to understand if the idea is durable Ries argues that the startup should have close contact with their customers from the beginning. The startup should establish different hypotheses about their business and then test them in close collaboration with their customers with the help of different experiments. By making the process iterative the startup can evaluate what parts of their product that create value and what parts should be pivoted in an early stage (Ries, 2011a).

Ries' book became widely popular when published; in a short amount of time 90,000 copies were sold and it became a New York Times bestseller in 2011 (Greenwell, 2012; New York Times, 2011). Today several different universities teach the theory, among some of them are Harvard, Stanford, and Berkeley (Blank, 2013a), indicating that it has been incorporated into the academic world.

However, some argue that the lean startup methodology can decrease the amount of early stage startup failures and, if the theory becomes widely used and accepted, stimulate the growth of the economy as a whole (Blank, 2013a). Meanwhile, the theory has received critique from others saying that the iterative nature of the method makes the startup fail to think in a long-term perspective, and that constant customer feedback can also cause paralysis within the startup (Moore, 2014). Furthermore, some argue that working according to the lean startup method can implicate that the company does not have enough means to quickly establish a strong market position when they have the chance to do so (Patz, 2013; Horowitz, 2010). In the New York Times' (2014) best selling book Zero to One by Peter Thiel (2014) the author argues that competition is destructive for companies and that entrepreneurs should focus solely on revolutionary innovation - and not on the incremental kind that Ries advocates in his book The Lean Startup (2011a).

Since the lean startup method is relatively new this means that the amount of scientific research and studies that problematize and evaluate the method are limited as of today (Patz, 2013). Meaning that there is a gap in the existing literature when it comes to evaluating the advantages and limitations of the lean business method and therefore further research needs to be done within this field.

In addition to this, the authors of this thesis are also active as entrepreneurs and founders of an early-stage startup. Through this process they have been in touch with several business developers working for innovation networks that provide e.g. incubator programs to startups across Sweden. This has provided the authors with the insight that all of the contacted business developers, and many of the entrepreneurs linked to them, advocate the lean startup method. However, it is not entirely clear to the authors why this particular model has become a standard methodology within the startup community. When analyzing the available theory, there is little or no material explaining why the lean startup method has become established in such a short period of time and no studies evaluating its effect on the startups applying it. Further research on the topic has been requested by several authors of other master theses within the same field of study (Lindkvist & Stjernberg, 2016; Patz, 2013; Gustafsson & Qvillberg, 2012).

Therefore, the authors have gained an interest in the lean startup method and want to contribute to the theoretical foundation. By investigating the advantages and limitations of the lean startup method, the authors aim to start filling some of the existing gaps in literature and also contribute with suggestions on topics to conduct future research on within this particular field of study.

#### 1.2 Problem statement

Eric Ries released his book The Lean Startup in 2011 and it quickly became a bestseller in the U.S.. Today the lean startup method is widely established, both within the startup community in Sweden but also among leading universities across the world. Innovation networks (i.e. startup hubs that provide entrepreneurs with incubator programs and guidance from business developers) encourage the entrepreneurs to read Ries' book and to apply the lean startup method in their companies. Meanwhile, there is little scientific evidence regarding the benefits of using the method and no research reviewing its limitations or when and for whom the method is appropriate to apply. This can become problematic for entrepreneurs that get exposed to the method without knowing how or when to apply it and in what way its appliance might affect their startup. By investigating the advantages and limitations of the lean startup method the authors therefore aim to fill some of the existing gaps in literature and to help existing and aspiring entrepreneurs to gain a deeper understanding of the method.

# 1.3 Purpose

This study aims to critically review the lean startup method by investigating its advantages and limitations. By doing so the authors hope to help existing and aspiring entrepreneurs to gain a better understanding of the method and to fill some of the existing gap in literature. By looking into the advantages of the method, the reader might gain insights into when an entrepreneur should consider applying the method and why it could be useful for his/hers particular startup. By looking into the limitations, one might instead gain an understanding of when the method could become cumbersome to apply. Finally, based on the findings of this study, the authors aim to give hands-on recommendations to entrepreneurs

regarding what they should think about before deciding to use the lean startup method or not.

#### 1.3.1 Research question

The research question of this master thesis has been formulated as follows:

RQ: What are the advantages and limitations of the lean startup method?

#### 1.4 Delimitations

This master thesis has a limited time frame of 20 weeks. Due to this restricted time frame, the number of interviews has been limited to ten, whereof six will be held with entrepreneurs that have participated in incubator programs arranged by certain innovation networks (such as Sting Incubate in Stockholm and Venture Lab in Lund). The entrepreneurs' connection to an incubator hopefully means that they are familiar with the lean startup method to some extent. Though, participating in an incubator program may also have affected their way of thinking, which might not be representative of an average Swedish entrepreneur's mindset. Furthermore, the entrepreneurs all provide technological solutions of more or less advanced character, which might also influence their view on the lean startup method. Implying that due to the time limitation, this thesis will not be able to expand the sample group further by e.g. including startups that have not participated in incubator programs or companies that provide non-technological solutions. The sample group will also only contain startups and will not include companies that have come further in their life cycle.

The time limitation will also impact the generated results, i.e. the advantages and limitations of the lean startup method. The authors do not imply that these findings can be seen as a common truth, but rather a step toward investigating the lean startup method more thoroughly. Instead the findings will hopefully contribute with insights that can pave way for future research, as to what type of company the lean startup method is most useful or the impact customer feedback has on certain organizations.

# 1.5 Outline of the report

#### 1 Introduction

The introduction chapter aims to give the reader a background to the field of research in order to understand both why the study has been conducted and why it can be considered to be relevant. The purpose and aim of the study is presented, followed by the research question and the delimitations.

#### 2 Methodology

The methodology chapter aims to present and justify the choice of research methodology that has been applied in this study. First, the research strategy and work process are introduced, followed by a description of the data collection process and of how the generated data has been analyzed. Finally, the credibility of the study is discussed.

#### 3 Theoretical framework

This chapter presents the theoretical framework of the study. It aims to give the reader an introduction and background to the field of study and to show how different theories that have been deemed influential for the startup scene relate to the lean startup method.

#### 4 Findings

In this chapter the findings from the in-depth interviews will be presented. Ten interviews were conducted with three different types of professionals that were considered to be experts within the field of study; six entrepreneurs, two business developers and two investors. The results are therefore divided into three sections "Findings from interviews with entrepreneurs", "Findings from interviews with business developers" and "Findings from interviews with investors".

#### 5 Analysis

In this chapter the answers from the interviews will be analyzed both by themselves but also in relation to the theory described in the theory chapter under the paragraphs "The lean perspective in theory and practice", "The entrepreneurs", "The business developers" and "The investors". Under "The theoretical framework" the underlying theory from the literature review will be analyzed and finally, the analysis will be discussed in relation to the research question.

#### 6 Conclusions and final remarks

In this final chapter the conclusions will be presented, i.e. the research question will be answered and the implications and limitations of the findings will be discussed. Furthermore, the authors will also give suggestions for future research on the field of study and finally make some concluding remarks about the thesis.

# 2 Methodology

The methodology chapter aims to present and justify the choice of research methodology that has been applied in this study. First, the research strategy and work process are introduced, followed by a description of the data collection process and of how the generated data has been analyzed. Finally, the credibility of the study is discussed.

# 2.1 Research strategy

#### 2.1.1 Qualitative research approach

This study aims to investigate the limitations and advantages of the lean startup method. To do this, a qualitative research approach has been deemed to be the most appropriate research strategy. The reason being that qualitative research is often conducted when the researcher wants to gain an in-depth understanding of the research issues, the context in which they operate and how the context influences the research issues. Furthermore, it can be used to comprehend the processes of how people make decisions or manage a business and to contribute with depth, detail and context to the research field (Hennink, Hutter & Bailey, 2011), which makes it a suitable approach for this particular study. Also, when the state of prior theory and research on a certain topic is nascent (which is the case of this study since limited research has been conducted on the advantages and limitations of the lean startup method) qualitative data collection makes a good methodological fit (Edmondson & McManus, 2007).

In contrast to qualitative research there is quantitative research. While qualitative research aims to gain a deeper understanding of a phenomenon, behaviors and/or beliefs - quantitative research instead attempts to quantify and measure a research issue to identify statistical trends and patterns. Qualitative research often focuses

on a smaller number of data collection units while quantitative needs a larger sample of respondents in order to draw valid conclusions about the broader population (Hennink et al., 2011). Since this study aims to gain an in-depth understanding of the advantages and limitations of the lean startup method, measuring statistical trends and patterns has not been deemed to be an appropriate approach to help answer the research question. Instead of drawing conclusions about a large population, fewer data collection units have been investigated in order to gain in-depth understanding of the phenomenon of the study.

#### 2.1.2 Exploratory and abductive approach

The study has an exploratory approach, suitable when the field of study is considered to be unexplored due to a limited amount of prior theory and research on the topic. By conducting qualitative research with an exploratory approach the study will contribute with an understanding of the phenomenon and help future researchers knowing what to focus their research on (Edmondson & McManus, 2007; Lekvall & Wahlbin, 2001).

Deduction, induction and abduction are examples of different reasoning approaches that explain the relation between theory and practice in a study. Deduction uses already existing theory as a baseline in order to set up hypotheses that are to be tested empirically or measured against data. Depending on the generated results of the study the theory is then validated or redefined if necessary. Meanwhile, induction works the other way around; the generated results of the study compose new theory (Bryman, 2011; Mason, 1996). Finally, abduction, is an interpretive approach suitable when the researcher develops or evaluates theory and conduct data collection and analysis simultaneously (Mason, 1996).

An inductive reasoning approach is often applied in qualitative studies (Bryman, 2011; Creswell, 2014; Yin, 2011) while deduction is closely related to quantitative studies, since it implies that the researcher measure and match collected data against predefined hypotheses (Mason, 1996). This study involves elements of both deductive and inductive reasoning since it aims to analyze an existing theory (the lean startup method) in-depth, but without setting up hypotheses and testing them by measuring collected data. Instead the flexibility of an abductive approach is desired, because of its interpretive nature and the simultaneous iteration between data collection, analysis and theory creation and evaluation.

# 2.2 The work process

#### 2.2.1 The qualitative research cycle

The work process of this study was inspired by the principles of the qualitative research cycle, presented by Hennink et al. (2011). The qualitative research cycle is especially suitable for qualitative research and emphasizes an iterative, non-linear work process where the different parts of the cycle are interlinked and can happen simultaneously. A figure of the work process can be seen below, adapted after the cycle presented by Hennink et al. (2011).

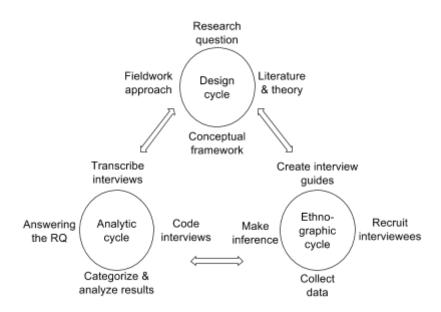


Figure 2.1: Work process adapted after the qualitative research cycle by Hennink et al. (2011)

Within the research cycle there are three minor cycles; the design cycle, the ethnographic cycle and the analytic cycle. The process was initiated by the design cycle where the research question was stated and in-depth semi-structured interviews was chosen as the data collection method. Then a literature review was conducted, a conceptual framework of the work process was created and an approach for how the fieldwork was going to be organized was established. These

tasks were interlinked and helped answering the questions "What is being investigated?" and "How should the data be collected in order to answer the research question?". The ethnographic cycle then consists of designing the research instruments - in this study it represented the interview guides - followed by recruiting interviewees and then starting the data collection process that was decided in the design cycle. The last cycle is the analytic cycle; where the collected data was transcribed, coded and analyzed in order to answer the research question.

#### 2.2.2 Literature review

The work process was initiated by stating the research question, conducting a literature review and outlining the methodology for the data collection. These tasks were basically conducted simultaneously. Initially, a literature review helps the researcher to gain an understanding of the field of the study and to determine whether or not the study is worth conducting. By investigating the current state of the research field, gaps in literature can be highlighted and that way prove the relevance of the study (Creswell, 2014).

The literature review was initially conducted by partly reading The Lean Startup by Eric Ries (2011a) and partly using the library database of Lund University (LUB Search) to gain an understanding of the field of study. Additional articles and books were sometimes found due to authors referring to other authors in their own work. Later in the process, more theory was also reviewed based on recommendations from interviewees.

#### 2.2.3 Interviews

After the initial phase of the work process the interview guides were created and the first interviewees were contacted and interviewed. To find entrepreneurs that had time for an interview turned out to be quite challenging. More than 40 entrepreneurs were contacted via phone or email in order to get the six required interviews. More information about the data collection method is described under the next section (Data collection).

Nine of the ten interviews were conducted in person and one over the phone. They all took between 30 minutes to one hour. All the interviews were recorded,

transcribed and coded. Data collection, coding of the transcribed interviews and data analyzing happened simultaneously throughout the study, as described below under Data analysis.

#### 2.3 Data collection

#### 2.3.1 In-depth semi-structured interviews

An in-depth interview is a data-collection method involving one person (the interviewer) interviewing the participant (or interviewee) and by this interaction letting the participant thoroughly discuss a certain matter (Hennink et al., 2011). There are two types of interviews; structured and semi-structured (or qualitative) interviews. A structured interview aims to script the exact interaction between the interviewer and interviewee and the interviewer follows a formal interview guide with questions that ought to be asked in the exact order they appear. The interviewer then repeats the same identical behavior with all participants. The other type of interview is the semi-structured one, referring to a less formal interviewing approach with a less strict interview guide. Meaning that the interviewer will adopt an informal role and thereby make the interview more conversational. The interview guide then becomes more of a flexible framework, letting the interviewer ask questions in whatever order seems appropriate and is free to add or change the predetermined questions (Yin, 2011).

In qualitative and exploratory studies, in-depth semi-structured interviews are considered to be an especially appropriate data-collection method (Bryman, 2011; Edmondson & McManus, 2007; Hennink et al., 2011). Furthermore, in-depth interviews are claimed to be suitable when the study seeks to gain insights into personal and individual experiences about a certain topic and it is a way of gaining understanding of how people make decisions and what motivates them (Hennink et al., 2011). On these grounds it was deemed to be a good approach for this study.

#### 2.3.2 Interviewees and interview guides

In this project three groups of interviewees were identified; entrepreneurs, business developers and investors. The idea was to get a multifaceted picture of what key actors within the startup scene consider to be important when starting a company and what insights their different roles have contributed with. Entrepreneurs that apply a lean startup way-of-thinking might have practical insights into advantages and limitations of using the method while business developers might instead have an overview of when it is a suitable method to apply and when not to. Finally, the investors were chosen as an interview group since they are important stakeholders for startups. To investigate if they value a lean-startup mentality in their investments might add insights to if it is worthwhile to use the method or not.

The idea of saturation can be used in order to decide the number of interviews, meaning that no further interviews are being held when the gathered information does not generate any new insights (Creswell, 2014). However, due to the time limitation of 20 weeks of this project the authors decided beforehand that two investors, two business developers and six entrepreneurs would be a suitable mix of interviewees for this project. Therefore, a total of 10 in-depth interviews were conducted. A list of the interviewees is shown in Table 2.1 and a detailed description of all of the interviewees can be found in Appendix A.

Three interview guides were created; one for the investors, one for the business developers and one for the entrepreneurs. Three different guides were considered necessary because the interview groups all have diverse knowledge bases and were therefore expected to generate differentiated insights to the project. It was for example deemed impossible to assume that the investors had insights about the lean startup method while the business developers and entrepreneurs were more likely to be familiar with the method (since The Lean Startup by Eric Ries has been trending within startup networks and incubator programs). Therefore, different questions were formulated to the three interview groups and all three guides can be found in Appendix B. Furthermore, since in-depth semi-structured interviews were determined to be the most appropriate interview type for this study, the interview guides were developed in a semi-structured way and were

considered more as informal guidelines than a strict framework during the interviews.

All interviews were conducted in person except for the one with Joel Larsson, which was conducted over the phone. The interviews all took between 30 minutes to one hour.

Table 2.1: List of all the interviewees

Interviewee segment	Name	Company	Role
Investor	Stefan Lennhammer	Truecaller	Chairman of the board
Investor	Kristina Söderberg	SEB	Investment manager
Business developer	Joel Larsson	Fast Track Malmö/Minc	Program manager
Business developer	Mårten Öbrink	Minc	CEO
Entrepreneur	Jonas Ahlberg	Billecta	Founder/CEO
Entrepreneur	Vedran Ismaili	Henry	Founder/CEO
Entrepreneur	Hjalmar Nilsonne	Watty	Founder/CEO
Entrepreneur	Ludvig Persson Lejon	Qasa	Founder/CEO
Entrepreneur	Victor Sandberg	Luckan AB	Founder/CEO
Entrepreneur	Johan Strömqvist	Single Technologies	Founder/CEO

#### 2.3.3 Interview selection process

Regarding sampling methods, Yin (2013) explains there to be three different approaches; random sampling, purposive sampling and snowball sampling. Purposive sampling means that the researcher selects interviewees that are expected to generate the most relevant data, while random sampling includes "selecting a statistically defined sample of units from a known population of units". Snowball sampling implies that while conducting an interview, the

researcher identifies other data collection units to be interviewed further on in the process (Yin, 2011; Hennink et al., 2011). In this study purposive sampling has been used.

First, four interviewees were identified; two investors (one private investor and one venture capitalist) and two business developers (the CEO of the innovation network Minc in Malmö and the Program manager of the accelerator program Fast Track Malmö, also a part of Minc). Because of the nature of their professions they were all considered to be experts in this field of study and therefore deemed capable of generating relevant data for this study. Second, entrepreneurs were chosen by contacting alumni entrepreneurs from Sting's incubator or accelerator programs in Stockholm - except for one alumnus, Victor Sandberg, who instead has participated in VentureLab's incubator program in Lund. The reason for targeting alumni entrepreneurs is because the lean startup method is often referred to in Sting's and VentureLab's startup programs. Implying that the entrepreneurs might already be familiar with the method and therefore might have deepened understanding and/or experience of applying the framework.

# 2.4 Data analysis

The generated data from qualitative studies is very rich and since not all data will be deemed to be relevant it needs to be sifted (Creswell, 2014). A common way to proceed when interviews have been chosen as the data collection method is to organize the relevant data into clusters by coding the transcribed interviews (Creswell, 2014; Yin, 2011; Hennink et al., 2011). There are two different types of codes - inductive and deductive codes - and normally both types are used in a study. Deductive codes are derived from the underlying theory of the study while inductive codes are originated from concepts that the interviewees have brought up (Hennink et al., 2011). Both types have been used in this study; deductive codes when concepts of the lean startup method have been discussed and inductive codes when new important matters have appeared.

Because of the abductive nature of this study an iterative, non-linear analysis process described by Yin (2011) has been applied, where data collection and analysis are interlinked and can happen simultaneously. Working iteratively between data collection and analysis is especially efficient when the field of study

is relatively new and no mature theory exists. Reason being that the researcher cannot be sure of which processes and concepts are of importance to the study beforehand. This approach provides flexibility to the work process and helps the researcher to discover important themes to be further explored (Edmondson & McManus, 2007).

The analysis process described by Yin (2011) can be seen in Figure 2.2. It consists of five steps: compiling data, disassembling data, reassembling data, interpreting data and making conclusions. The first step implies compiling the notes from the fieldwork and data collection process; in this study it represents the transcription of the interviews. The second step of the process aims to disassemble the compiled data into smaller categories, for example by using codes, followed by the third step that intends to cluster the codes into themes. The second and third step might be repeated a couple of times before an optimal categorization is achieved. Then the data should be interpreted, which might lead to the need of recompiling the data, disassemble it or reassemble it once again in a new way. The final step includes making conclusions about the entire study. This cycle shows the iterative process of analyzing qualitative data.

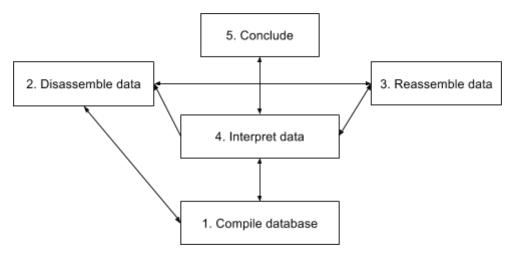


Figure 2.2: The analysis process of qualitative studies as described by Yin (2011)

# 2.5 Credibility of the study

#### 2.5.1 Credibility of qualitative research

One of the most important concepts regarding quality control of a study is the validity. Validity means that the conclusions of the study are correct; that they are accurately drawn from the collected data and therefore reflect the real world in a true way (Yin, 2011). Reliability, another crucial concept, looks at if the results of the study would be the same if the study were to be repeated in the exact same way. Since qualitative studies are not as focused on measurements as quantitative studies are, there are some researchers that mean that it is irrelevant to discuss the two concepts in relation to qualitative studies (Bryman, 2011). LeCompte and Goetz (1982) instead divide the two concepts into internal and external reliability and validity, which are more adapted to qualitative studies. Furthermore, Lincoln and Guba (1985) propose two new concepts: trustworthiness and authenticity.

#### 2.5.2 External and internal reliability and validity

LeCompte and Goetz (1982) claim external reliability (i.e. the ability to replicate a qualitative study) to be hard to achieve since it is hard to freeze a social environment. Although, if one wishes to replicate this study and be able to make comparisons between the studies, the succeeding researcher could take on the same social role as the authors of this thesis. Internal reliability on the other hand, means that the members of the research team agree on how to interpret what they see and hear, which has been ensured in this project since the authors have worked closely together and established a common way of interpreting the generated results. Meanwhile, internal and external validity is harder to achieve for this project. LeCompte and Goetz (1982) mean that external validity (i.e. to what extent the study can be generalized to other social situations) is generally hard to achieve for qualitative research, while internal validity (the resemblance between the observations and the evolved theory) is easier since it is improved over time. However in this case, the time limitation of the project is down to 20 weeks and therefore hampering the internal validity.

#### 2.5.3 Trustworthiness

Lincoln and Guba (1985) propose trustworthiness as a measurement for qualitative studies and it consists of several subcriteria, e.g. credibility, transferability and dependability. To ensure credibility, the researcher should carefully conduct the study according to existing rules and get confirmation from the participants that the generated results are in accordance with their provided information. Therefore, all interviewees have been contacted after the interviews so that they could confirm their given results to be true. The transferability means that the authors provide thick descriptions (Appendix A) of the interviewees so that the reader can decide for him-/herself if the results are transferable to other groups or not. Finally, to achieve dependability the researcher ought to have an auditor, in this case it could represent the supervisor of the thesis, with the purpose to audit the work process to ensure the overall quality of the study.

#### 2.5.4 Authenticity

Lincoln and Guba (1985) also bring up authenticity as a quality control concept for qualitative studies. It consists of several subcriteria that answers questions such as "if the study gives a fair enough picture of the different opinions and perceptions of the studied group?" and "if it helps the participants to understand and improve their own environment?". By investigating the limitations and advantages of the lean startup method, and doing so by interviewing different actors within the startup scene, the authors aimed to fill existing gaps in literature and provide a multifaceted view of the issue. By doing so the authors hope to help entrepreneurs and other stakeholders to gain a better understanding of how to start and build a company in the best way possible.

# 3 Theoretical framework

This chapter presents the theoretical framework of the study. It aims to give the reader an introduction and background to the field of study and to show how different theories that have been deemed influential for the startup scene relate to the lean startup method.

## 3.1 The lean concept

John Krafcik first used the term lean in 1988 in an article about the production techniques used by Toyota at the time. This was further discussed in the book "The Machine That Changed the World" (Womack et al., 1990). Toyota's concept was that every activity within the company had to add value to the final product. If the activity does not create any added value it means that it is unnecessary and can therefore be removed from the production process in order to eliminate waste and reduce costs. Hence, the method was named lean production.

The concept can be applied to other parts of the organization than just the manufacturing process and eventually the term lean has been used in many other situations (Holweg, 2006). In 2008 Eric Ries coined the term "The Lean Startup" on his personal blog and later on in 2011 he published the book The Lean Startup, where he applied the lean concept to the startup scene by creating a model for developing startups without wasting unnecessary time and resources. His book became widely established and today his theories are taught by business developers at several business incubators in Sweden such as Sting in Stockholm, UIC in Uppsala and Think in Helsingborg (Ries, 2008; Ries, 2011a). The foundation for his theories and models are built on personal experiences combined with interviews with many entrepreneurs, but also on previous theory from e.g. Steve Blank's book The Four Steps to the Epiphany that was first published in 2006 (Ries, 2011a; Blank, 2013), which will be further explained under section

3.4. The lean concept has also been applied by Ash Maurya (2012a) to the business model canvas (a framework originally developed by Alexander Osterwalder (2005), see section 3.5), creating an adjusted lean canvas mainly suitable for entrepreneurs and startups, see section 3.6.

## 3.2 The Lean Startup by Eric Ries

#### 3.2.1 Introduction

Influenced by the lean production theory, Ries (2011a) promotes minimal waste in terms of time and money to be able to build capital-efficient companies. His idea is to create hypotheses about the business model that are to be tested via continuous experiments. These tests are supposed to reveal what the customer really wants, as early on in the business development process as possible. Constant customer feedback, iterative product development and validated learning are key concepts and he stresses the importance of not spending any type of resources on efforts that are not validated to add customer value. He states the method to be applicable in basically any type of company, regardless of size or industry.

#### 3.2.2 Hypotheses

The lean startup model builds on making assumptions, so called hypotheses, about the business that are supposed to be tested in order to be validated as true. The two most important hypotheses, according to Ries (2011a), are the value hypothesis and growth hypothesis. He defines the value hypothesis to "test whether a product or service really delivers value to the customer once they are using it" and the growth hypothesis to "test how new customers will discover a product or service". An example mentioned in Ries' book (2011a) is the initial hypothesis of the American online-shoe store Zappos; that people were ready and willing to start buying shoes online. Once one or several hypotheses have been established they can be tested by conducting different experiments.

#### 3.2.3 Build - measure - learn

One of the fundamental concepts of the lean business model is the build-measure -learn feedback loop. Ries (2011a; 2011b) means that all experiments should follow this three-step process in order to build a sustainable and successful business. The build part of the loop aims to conduct experiments, e.g. building a beta prototype (a MVP, short for Minimum Viable Product) to let the customer test the business hypothesis. The customer's interaction with the product will generate qualitative and quantitative data and feedback regarding what the customer thinks about the product. By establishing ways to measure this data the company can learn about its customers and decide if to pivot or persevere its business strategy.

The three parts of the loop are not important if seen as individual efforts, instead the entrepreneur needs to focus on minimizing the total time it takes to go through the entire loop. This way the unnecessary waste of recourses can be eliminated (Ries, 2011a; 2011b).

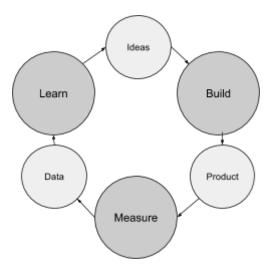


Figure 3.1: The build-measure-learn loop by Ries (2011a)

#### 3.2.4 Experiments

Ries (2011a) claims that an advantage of conducting experiments to test the hypotheses is that it is a more time-efficient effort than e.g. strategic planning. The experiments can be initiated immediately and shortly thereafter give indications about the accuracy of the hypothesis, while strategic planning normally takes months to complete. Ries (2011a) also states experiments to be a superior way to analyze customers' opinions rather than e.g. conducting a survey, since the author means that people often cannot audit their own feelings in an objective way. Instead of asking the customer questions a more accurate image can be achieved by observing the customers' behaviors in different situations.

An example of an experiment is split testing. Split testing means that the company makes two different versions of the product and let two different groups of customers test them at the same time. The differences in response and behavior should then be measured and analyzed in order to decide the accuracy of the hypothesis (Ries, 2011a).

#### 3.2.5 MVP

One of the most crucial concepts in Ries' book (2011a) is the Minimum Viable Product. It is a way to test the hypothesis and start the learning process as soon as possible. The MVP is a basic version of the product, a prototype or beta version that is developed with a minimum amount of effort and time. It lacks features that the product will have in a later stage but still has enough features to be able to measure the customer's perception of the value of the product. The purpose is simply to let customers get in contact with the product sooner rather than later. According to Ries (2011a), this will prevent the startup from spending unnecessary resources on developing features that might not add any value to the customer, and could therefore reduce potential waste.

There are several ways to build an MVP except for building a product that only has a limited amount of functions; one example is what Ries (2011a) refers to as the concierge minimum viable product. Here the entrepreneur manually does what should be done by a computer in the finished version of the product, and only for a

few customers. By pretending to be a computer the entrepreneur can understand the customer's needs before developing the actual product or service.

#### 3.2.6 Innovation accounting

Measuring the performance of the MVP or the experiments is a key indicator on how the product development is actually leading to progress for the company. Ries (2011a) promotes a method called innovation accounting, which he explains to be a quantitative method aiming to show if the company is working in the right direction. The innovation-accounting approach consists of three steps or "learning milestones"; first the company needs to establish its baseline by measuring data generated from its existing MVP. This means that the company needs to map its current situation. The second step Ries calls "tuning the engine", meaning to make micro changes and optimizations of the product from the baseline towards the desired ideal. The third step is a decision point - determining whether to pivot or persevere its current business strategy (Ries, 2011a).

#### 3.2.7 Pivot or persevere

Ries (2011a) means that by following the build-measure-learn feedback loop the company will find out as fast as possible when to pivot its business strategy and when to persevere it. Pivoting means that the company makes a turn and steers the strategy into a different direction than before. By testing the hypotheses and analyzing the results the company will be able to understand if it is building and adding value to its customers. If the experiments reveal that they are not actually adding value, then it is time to pivot and establish new hypotheses to be tested. This way the company realizes in an early stage when and if there is a need for change and can therefore also avoid unnecessary waste of time and money.

#### 3.2.8 Measuring metrics

In order to measure the customer-generated data from the experiments, Ries (2011a) stresses the importance of analyzing the right metrics. He describes some metrics as "vanity metrics", meaning favorable numbers that are fooling one to believe that the company is achieving great results. As an example, solely presenting the amount of new customers using a certain product or service does

not necessarily indicate sustainable growth. Instead Ries (2011a) promotes cohort analysis; rather than analyzing gross numbers (such as total revenue or total number of customers) the company should investigate the performance of different customer segments that are coming in contact with the product. If the company is an online service, cohort analysis could e.g. present the percentage of customers that "registered but did not log in", customers that "used the service more than three times" and/or customers that "has paid to use the premium service".

# 3.3 Design thinking

One of the theoretical influences in Ries book is the concept of design thinking (Ries, 2011a). The term originates from literature from the 60s and early 70s and since then theory adding to the concept has been continuously published by different authors (Johansson-Sköldberg et al., 2013). The original purpose was to identify a scientific methodology that could create "satisfying solutions". By creating prototypes, testing them in an iterative sense and observing how they perform, the best possible solution could hopefully be found (Simon, 1969). Later, McKim (1987) added a holistic way of designing to the process, where creativity is combined with engineering in order to solve problems. Later on "d.school" was established at Stanford and now exists in several places in the world (Hasso-Plattner-Institut, n.d.). The design thinking process taught and practiced at d.school consists of five general steps:

- 1. Empathize
- 2. Define
- 3. Ideate
- 4. Prototype
- 5. Test

The steps can be performed in an iterative manner, in a different order or simultaneously in order to identify problems and come up with innovative solutions. By first understanding the situation and gathering data it is possible to get a wider understanding of what problems are in need of being solved. After this there is an ideation process where as many suggestions for solutions as possible are gathered. By building basic prototypes based on the best contributions from the ideation phase it is possible to test and evaluate in an iterative manner until an

innovative product that solves a real problem has been developed and can be produced (Cohen, 2014).

The purpose of the process is to find a method for being innovative, and to be able to discover new solutions by analyzing the problem and then brainstorming in an open and informal way (Cohen, 2014).

There are several other ways to structure the process except for the one presented from d.school. What they all have in common is that there are phases for gathering information and framing the problem, coming up with as many solutions as possible, designing a prototype and then evaluating it in an iterative work process where all the steps can be repeated several times. Since the method starts in a broad sense it is appropriate for solving difficult problems that are hard to define (Dorst, 2011).

## 3.4 The Four Steps to the Epiphany by Steve Blank

First published in 2006, Blank's book changed how product development was viewed by shifting the focus from product development to customer development. Meaning that instead of developing a product in the traditional way, starting with concept development and ending with a product launch, the entrepreneur should focus their efforts on validating their idea by talking to their potential customers (Blank, 2013b). Blank presents a four step model called "The Customer Development Model" consisting of customer discovery, customer validation, customer creation and finally company building. The model helps the startup test if their original hypotheses about their product, the problem they have identified and their business model are correct. This way it can be discovered if their product actually solves the problem that has been identified, and if the product is something the customer wants. Blank promotes the entrepreneurs to stop thinking about who might buy their product and instead "get out of the building" to find out (2013b), a method that is also mentioned by Ries in The Lean Startup (2011a).

The first company to test Blank's customer development model was Eric Ries startup, IMVU, that later developed into a company with more than \$50 million in annual revenues in 2011 (Blank, 2013b; Ries, 2011a). Hence it is not hard to

recognize that large theoretical parts of The Lean Startup are inspired by Blank's customer development model (Ries, 2011a).

## 3.5 The Business Model Canvas by Alexander

#### Osterwalder

In 2002 Osterwalder wrote an article trying to identify how to briefly describe a business model in a standardized way for e-businesses. At the time there were many different definitions and meanings related to the word "business model" (Osterwalder, 2002). After further developing his theories the business model canvas was first published on Osterwalder's personal blog in 2005 and then further defined in his book A Business Model Generation in 2009. The purpose of the framework is to give a standardized way of defining a business model with the help of nine different building blocks (Osterwalder, 2009). Osterwalder (2002) argues that without using a standardized framework businesses often only describe a small part of their business when they are defining their business model. After defining the different blocks a more organized overview of the business model and a clear understanding of how the organization can create value can be achieved. The nine different building blocks are shown in the table below. By analyzing and defining these different parts of the organization the company can become more competitive (Osterwalder, 2009).

Key Partners What are our key partners? Who are our key suppliers? Which key resources are we acquiring from partners? Which key activities do partners perform?	Key Activities What key activities do our value propositions require? Our distribution channels? Customer relationships? Revenue streams? Key Resources What key resources do our value propositions require? Our distribution channels? etc.	Value Proposition: What value do deliver to the customer? Which one of customer's products and sare we offering each custome segment? Which custome satisfying?	we  bur  blems  solve?  of  services  g to	Customer Relationships What type of relationship does each of our customer segments expect us to establish and maintain with them? etc.  Channels Through which channels do our customer segments want to be reached? etc.	Customer Segments For whom are we creating value? Who are our most important customers?
Cost Structure  What are the most important costs inherent in our business model?  Which key resources are most expensive?  Which key activities are most expensive?			For what	ue Streams  t value are our customers of do they currently pay?	really willing to pay?

Figure 3.2: The business model canvas by Osterwalder (2009)

# 3.6 Running Lean and The Lean Business Canvas by Ash Maurya

Following the business model canvas Ash Maurya (2012b) decided to adapt the model to a canvas that is more actionable and focused on the entrepreneur. The lean canvas is one of the main parts of the book Running Lean that Maurya first published in 2010 (Maurya, 2012a). The model uses the same visual concept as the original business model canvas, presenting the business model in one single page, however some of the building blocks Osterwalder (2009) originally proposed are replaced with new blocks (Maurya, 2012a). Maurya focuses on the problem instead of presenting a "value proposition" that Osterwalder (2009) discusses because he argues that it is vital to be able to define the problem in order to know if the entrepreneur is making a product that can solve it (Maurya, 2012b). Solution

replaces key activities, customer relationship is replaced by unfair advantage and key resources are instead replaced by key metrics (Maurya, 2012a). Maurya kept the original concept with a one page business plan and combined it with the lean concept, theory inspired by The Four Steps to the Epiphany and his own experiences from startups, creating a canvas that is adapted for lean startups (Blank, 2013b; Maurya, 2012b).

Problem Top 3 problems	Solution Top 3 features  Key Metrics Key activities you measure	Unique Valu Proposition Single, clear, compelling me that states why are different and buying	essage y you	Unfair Advantage Can not be easily copied or bought  Channels Path to customers	Customer Segments Target customers
Cost Structure  Customer acquisition costs Distribution costs Hosting People, etc.		Revenue Streams  Revenue model Life time value Revenue Gross Margin			

Figure 3.3: The lean canvas by Maurya (2012a)

## 3.7 Zero to One by Peter Thiel

After the dotcom crash in 2000, according to Peter Thiel (2014) there were four principles that entrepreneurs said they should apply in order to avoid such a crash from happening again:

- 1. Make incremental advances
- 2. Stay lean and flexible
- 3. Improve on the competition
- 4. Focus on product, not sales

Thiel (2014) claims that these have become a common truth in the world of startups, and that being lean and iterating is the same thing as having no long-term plan for the future. He also means that improving on competition means that the entrepreneur does not try to create something entirely new, but instead begins with an already existing customer and only tries to develop something better then what other companies are already doing. Finally he thinks the concept "if the product is good enough it will sell itself" is inaccurate and that basically any product, no matter how good it is, will also require sales. Thiel (2014) argues in his book that this way of thinking should instead be replaced with these four principles:

- 1. It is better to risk boldness than triviality
- 2. A bad plan is better than no plan
- 3. Competitive markets destroy profits
- 4. Sales matter just as much as the product

Meaning that instead of innovating in an incremental fashion companies should be revolutionary and create completely new solutions. Thiel (2014) means that in modern economic theory, perfect competition is seen as the ideal for a functioning economy, but that this is destructive since it means that the profit eventually will become zero. According to him, when a company operates with a small or non-existent profit margin the quality of its services also diminishes, the conditions for the employees get tougher and they cannot plan in a long-term perspective. He argues that because of this a monopolist can provide better services or products for its customers than a company operating in a market with perfect competition (Thiel, 2014).

### 3.8 Summary of theory chapter

The most relevant and established theory of the field of study has been presented above. Some of the authors have co-operated when writing their books and developing their theories as in the case of Ries testing Blank's customer development method on his own startup before writing his own book - for a while every new employee at Ries startup, IMVU, got a copy of The Four Steps to the Epiphany (Blank, 2013b; Ries, 2011a) - hence it is natural that some of the theories intertwine with each other. Below a summary of the described theory is presented in order to have the theoretical background fresh in mind when moving on to findings, analysis and conclusions. The Lean Startup (Ries, 2011a) will be summarized more in detail while the other theories will be summarized by how similar they are and how they differentiate from Ries' book.

Table 3.1: Summary of The Lean Startup by Ries (2011a)

#### Summary of The Lean Startup (2011a)

The entrepreneur should focus on their potential customer; by quickly letting the customer test their product they will find out if their business model is viable. Ries means that this can be done with the help of an MVP and different experiments that test if the entrepreneur's hypotheses about their business are correct. He promotes the concept "build-measure-learn" that should be repeated in order to develop the product. If the initial hypotheses are not correct Ries means that they should find new ways of being successful by pivoting their idea. He also argues that it is important how the innovation is measured and what metrics that are analyzed in order for the company to draw the correct conclusions about their business. According to Ries, the main purpose of a startup is to turn ideas into products with the help of the build-measure-learn loop.

On the following page a summary of the other theoretical models in relation to The Lean Startup by Eric Ries (2011a) can be found.

Table 3.2: Summary of the theoretical models in relation to The Lean Startup by Ries (2011a)

Model	Summary	Similarities/differences from the lean startup
Design Thinking (no date)	A work process defining how to find "satisfying solutions". This is done by an ideation process followed by creating basic prototypes that can be evaluated in an early stage. Customer feedback is one of the main tools for product development, and the work process is iterative when testing and developing the product or solution.	Parts of the theory are similar to Ries (2011a) since it is an iterative work process. Design thinking focuses more on solving existing problems while Ries focuses on finding a product-market fit for an existing solution or idea, for example by experimenting and then pivoting or persevering.
Business Model Canvas (2002)	Standardized way to present a company's entire business model in one page - the business model canvas. The entrepreneur has to identify the essence of their business by defining what their value proposition is.	Predecessor to the lean canvas by Ash Maurya.
The Four Steps to the Epiphany (2006)	The introduction of the term customer development. The entrepreneur should define and test their hypotheses by identifying and talking to their potential customers before scaling up and growing their company.	This book was handed out to every new employee at Ries largest startup so it has been a great inspiration for Ries book and many of the theories are similar (Ries, 2011a).
Running Lean/Lean Canvas (2010)	Inspired by lean thinking and the business model canvas this canvas is an alteration of the original that is more suitable for entrepreneurs. It focuses less on formal business terms and more on what problem they are solving and the unique value proposition.	Maurya wrote Running lean inspired by his own experiences with startups, the lean concept and Steve Blank's book The Four Steps to the Epiphany (Maurya, 2012b).
Zero to One (2014)	The author argues that competition is a destructive force and that it is better to be completely innovative (going from nothing to something new) instead of simply evolving existing innovations.	Thiel's theory directly opposes what Ries suggests, he says that being incremental and lean is the opposite of how startups should operate if they want to be successful.

# 4 Findings

In this chapter the findings from the in-depth interviews will be described. Ten interviews were conducted with three different types of professionals that were considered to be experts within this field of study; six entrepreneurs, two business developers and two investors. The results are therefore divided into three sections "Findings from interviews with entrepreneurs", "Findings from interviews with business developers" and "Findings from interviews with investors".

## 4.1 Findings from interviews with entrepreneurs

#### 4.1.1 Introduction

The findings from the in-depth interviews with the entrepreneurs are divided into the sections "Opinions about the lean startup method", "Hypotheses", "Prototypes/MVPs", "Measure success" and "Pivoting". These sections follow the structure of the interview guides, which can be found in Appendix B. In Table 4.1 a short description of the interviewees is given.

#### 4.1.2 Opinions about the lean startup method

Three of the six entrepreneurs did not know the lean startup method well enough to discuss neither pros nor cons related to its appliance without having the lean concepts described to them. The rest of the entrepreneurs knew the method fairly well and had been in contact with it before. Of these three, two expressed an overall liking of the lean methodology. The other one expressed disapproval by claiming it to be self-explanatory and stating the obvious, meaning that entrepreneurs without resources have no other way of working than in small iterations. He meant that the lean startup method might be revolutionary for

elderly employees working for big corporations, but not for today's generation of entrepreneurs.

Table 4.1: List of the interviewed entrepreneurs

Name	Company	Founded	# of employees	Type of product	Description
Jonas Ahlberg	Billecta	2014	5	Software	Invoicing service
Vedran Ismaili	Henry	2016	n.a.	Software	Al-driven team assistant
Hjalmar Nilsonne	Watty	2013	14	Hardware Software	Tool for analyzing power usage data
Ludvig Persson Lejon	Qasa	2014	4	Software	Digital platform for tenancy agreements
Victor Sandberg	Luckan AB	2015	8	Software	Service for local trade (locals.se) and a payment service (Pej)
Johan Strömqvist	Single Technologies	2012	10	Hardware	3D microscope providing HD videos of molecules and cells

#### 4.1.2.1 Positive aspects

Vedran Ismaili and Victor Sandberg expressed the lean startup method as "being good to have in mind". Ismaili said that it is important to validate the value of a product's functions before actually building them, he explained it by saying:

"You and I might have an idea of reality but when we meet our customer they might have an entirely different idea. It is important to not invest too much in your vision before you have it validated. I think that's it - validate the hypothesis as soon as possible, as simple as possible. Always have that in mind."

Meanwhile, Sandberg discussed the lean startup method in relation to what lifecycle phase the company is. When the company has left the initial phase of

framing the product concept and moved on to finding product/market fit and later growth, then the lean startup method is great, he meant. To make sure not to build an entire product behind closed doors for six months and then release it, without input from customers.

Jonas Ahlberg stated that the best things about the lean startup method is that it makes you focus on the present, become resource efficient and to "get out and test your business model, start earning money and find your market". He meant that it is easy to get deceived by startups growing explosively by attracting a large user base but without having a proper business model backing up the company. "There I believe lean is really good. It forces you to find your business model".

Hjalmar Nilsonne advocated the lean startup method and said:

"The revolution of lean is that it gives a scientific framework for questions that has been perceived as hocus-pocus. That you simply just don't go for a vision and hope that you get it right but instead investigate things and collect data along the way."

Nilsonne continued by saying the lean startup method is best applied in teams:

"Because then you can say 'This is us now, this is our hypothesis and this is what we're trying to learn at the moment'. And then the whole team is able to understand what we are trying to achieve as a whole."

#### 4.1.2.2 Negative aspects

Regarding problems entailed with applying the lean startup method, Vedran Ismaili and Hjalmar Nilsonne commented on issues caused by building small iterations of the product to be tested on the market. Ismaili said the lean thinking might encourage the entrepreneur to build and test several smaller product features instead of focusing on the customer need they are trying to solve. He meant that time easily can be wasted on trying to solve and test every problem that appears:

"Somebody says 'This is a problem!', and by thinking lean you realize that you can build a very small iteration to try to solve that problem. Then you spend two days and really try to push it. But the question is - should you really have spent those two days to begin with? Take a step back and really think about how big the need is."

Nilsonne also commented on issues caused by the iterations: "The critique towards lean is that you don't have a vision, that you test a few things and see what

happens. And if the tests don't work out you simply quit. Instead of going for your vision."

While Ahlberg stated that the lean startup method helps to find the business model and market he also said that it could be counterproductive to disassemble the business model too much. He said that by thinking lean you are encouraged to seek each function's raison d'être and thereby forgetting the added value all functions constitute as a whole. He summed up by saying: "It's good to become resource-efficient (...) though the thought of always producing concrete value can be crippling; the value of a bunch of small features might be positive even though the individual features might not create enough value [by themselves]."

#### 4.1.2.3 Other thoughts

Vedran Ismaili highlighted the importance of having a vision and daring to say no to a customer. He said that the customer does not always know what he/she wants, since they tend to want everything if asked. He said that "you must have a vision of where we're going, why we're building it and dare to question it" and continued by saying:

"You as a business builder must have a feeling of what you think is really necessary to have (...) - you must have enough faith in your vision that you can say no to a customer and dare to lose them as a client."

Hjalmar Nilsonne also brought up the customer perception as a potential problem. He took Spotify as an example and argued that all their customers said to them for about five years was "No way we'll license our music to you". All customer data they collected spoke against their business model, so if Spotify would have followed the lean startup method they might have ended up doing something entirely different, according to Nilsonne.

Hjalmar Nilsonne also mentioned that people tend to use the concept lean lightly nowadays and interpret it the way they like. To him it means "build, measure, learn" and what he tries to do is set up hypotheses and identify crucial data to analyze. Nilsonne advocates the learning aspect of the lean startup method though not the innovation accounting aspect:

"What we have never applied from [the lean startup method] is what you call innovation accounting. To follow up on investments in terms of 'how much have we learned' - that has

really been too advanced for us. (...) Though I have formulated learning as a general goal and that has been very efficient. It tends to be very unintuitive to people."

Victor Sandberg continued discussing the relevance of the lean startup method in relation to the company's lifecycle. While praising appliance of the method in the phases of finding product/market fit and growth, he also questioned its relevance in the very initial phase of creating the product concept, i.e. identifying a problem and a potential solution. "To hope that you'll gain insights regarding how to build your product from talking to people - I don't believe in that. I don't believe that that creates innovation". He meant that the entrepreneur instead should analyze macro trends and movements, such as economic trends, in order to be one step ahead. He continued by explaining that if the entrepreneur gets interest from a potential customer right away in such an early stage, then the entrepreneur is probably already too late. Since the product development might take a year and the customer is ready to start using the product immediately, it indicates that the trend is ongoing and there might be other actors currently doing the exact same thing. Instead of asking the customer Sandberg said that "it's the person [the entrepreneur] in question that has the ability to read the market and conceptualize [the problem] in a sensible way".

#### 4.1.3 Hypotheses

Hjalmar Nilsonne was the only entrepreneur that to some extent set up hypotheses the way Ries (2011a) recommended in his book. Nilsonne claimed that he mainly sets up growth hypotheses and not value hypotheses, commenting that value hypotheses are difficult to set up if one is to create an entirely new type of product:

"If you're creating an entirely new product category and you ask people if they're interested - what are they supposed to say? (...) You get one of two answers. One is 'Yes, it sounds very interesting' and that [answer] means nothing. The other one is 'Why am I supposed to use it?'. And of course you don't know why you should use it, you've never tried it before!"

Except for the problematic nature of setting up value hypothesis for entirely new products, Nilsonne continued by expressing appreciation of working hypothesis driven in general. He meant that the results indicate what the customer really wants or dislikes, and even though he would receive negative feedback he would see it as a positive learning experience: "They might think we're crazy, but in the

end that is great. (...) Then we get to know our customers. We get to know their pains."

Meanwhile, Vedran Ismaili stated that an entrepreneur builds his business on hypotheses per definition. He starts by asking himself if he would enjoy the product and then if someone else would enjoy it as well. If he believes the answer to be yes he continues by building an MVP and tests it in order to validate if he is right:

"It's the only way of doing it. But it is stating the obvious. When you have limited resources there is no other way of working. You cannot lock yourself in for 12 months and build some grand version of it [the product]. Because you have no idea if it'll fly."

Ludvig Persson Lejon explained that they did not set up hypotheses but used a customer survey in order to set a price on Qasa's service. By asking the respondents what percentage they could imagine paying for such a service they finally chose their fee based on the answers of hundreds of potential customers. Furthermore, Jonas Ahlberg started Billecta with the intention to replace an existing service for a company. That way he worked closely together with the customer from the very beginning. They have always had an iterative process and started out by either guessing what the customers wanted or benchmarking competing services. Now they strictly develop functions that the customers specifically ask for - if it goes in line with their existing business model.

Finally, Victor Sandberg explained that they used a design thinking process when creating their product concept. They analyzed trends, competitors, stakeholders, unused opportunities and barriers and then created a concept based on those aspects.

#### 4.1.4 Prototypes/MVPs

All six entrepreneurs have worked with a prototype or MVP to some extent. However, it has been done differently in all the startups. Johan Strömqvist is developing a highly advanced technical product and therefore wants the beta version to not only be viable but also user friendly. He explains that this is because the user experience is important for them, he does not only want the results when using their technology to be excellent, but also for the daily work routine to be good. In order to come to the point of selling their first beta product they have

worked continuously with prototyping its technical functions. They try to take customer feedback into consideration when developing the beta but he explained that his team is well aware of what is "nice-to-have" and "must-have" due to their long experience of working with similar systems.

Hjalmar Nilsonne commented that they have mainly been working with MVPs in order to technically verify certain functions of their product but not to get customer feedback. He explained that it is a way for them to prove to stakeholders that they can build technology that no one thought was possible. Though, as mentioned before, since they are creating an entirely new product category it is hard to ask customers what they think about it, since they have never been in contact with a similar product before.

Jonas Ahlberg worked with an MVP for about three weeks before releasing the first version of their product and it was developed in close contact with their first customer.

Ludvig Persson Lejon said that they called the first release of their platform a beta version to get a more forgiving reception from their first users. He explained that the technical functions are not so crucial when the service is a market platform; instead the most important thing is to get liquidity in terms of the amount of users.

One of the interviewed entrepreneurs (that wished to be anonymous in this particular case) explained that in order to verify the need of their product in the very beginning - before their platform was completely developed - they provided their initial customer with their service manually. This was possible since they did not have a large number of customers at that time, and with this method they could test what functions their customers responded well to before actually developing them.

Victor Sandberg explained they started working with their idea during a course at university where they developed a mockup of their platform to illustrate how it could work. After that they have continuously been working with MVPs. He commented that it is better if the person deciding what new functions should be tested is not the same as the one writing the code. Because then, tedious functions might not be prioritized in a correct way.

The opinions about working with MVPs differed between the entrepreneurs. Some thought that the concept is overrated. Hjalmar Nilsonne, who in general was

advocating the lean startup method, criticized the MVP-aspect by saying that "it only rewards functions that can be validated after two weeks of hacking". However, he said that MVPs can be useful when validating technical functions of the product: "to actually be able to build something and show that this technology - which no one thought could work - we can actually make it work!" He also mentioned that the customer can have a negative reaction towards an MVP if it is innovative, since they might not initially understand what they should use it for.

Furthermore, Vedran Ismaili advocated working with MVPs by explaining that it is always important to see "how can we make a super simple version of this [product] to see if we are heading in the right direction?" Though he also added that MVPs can make the entrepreneur focus too much on developing minor functions instead of focusing on the big picture and their original vision of the startup.

#### 4.1.5 Measure success

All of the entrepreneurs used different ways of measuring that things are going well, and some of them follow parts of Ries (2011a) recommendations regarding innovation accounting. The two companies that were more high-tech used milestones more than KPIs to see that they were working according to plan. Hjalmar Nilsonne explained that this is because it is hard to measure your progress when working with an innovative product:

"... we have teams, especially our machine-learning team, that can spend two months of work without seeing any improvement. Ok, so have they succeeded? Well, just because you don't have [great] results it doesn't mean that you have failed. Because that's how it is if you work with something innovative, you don't know what will work. (...) It doesn't mean that you have failed just because something you test doesn't work perfectly."

Johan Strömqvist said that they worked with two types of milestones, partially sales but also functionality in their beta version. He said it was difficult to measure what type of value the invested money would result in. Hjalmar Nilsonne also said that the view on what metrics are important depends on whom you ask, he said:

"One investor means that it's completely worthless to do something if you can't define from the very beginning which metrics you're trying to improve, and I think it's a bit hard

to unite that with doing something new. If you're doing something new you can't know exactly what it is you should measure."

Nilsonne continued by explaining that he tries to work with the balance between trusting his intuition and aspects they can actually measure.

Both Vedran Ismaili and Ludvig Persson Lejon agreed that it is easy for a startup to exaggerate KPIs in an early stage, Vedran Ismaili said that it was better to talk to their customers often than to analyze financial data:

"It's problematic to look at financial data too early. It's easy for many to make the mistake that they sit and optimize their KPIs. If you for example want growth, which is an extremely important metric, then you might start to get sloppy with the intimate contact just because we're looking at how many new customers we're getting."

Victor Sandberg mentioned that they did not work much with measuring metrics in the early stage of their startup because "it is not interesting until you have a large enough flow of customers". Instead they initially prioritized talking to their customers in person and interviewing them about how they experienced the service.

Finally, Ludvig Persson Lejon added that he thought the most important KPI to analyze was customer acquisition cost divided by customer lifetime value. He explained that if this factor is larger than one then all that is needed to make the business grow, and to get a larger market share, is to invest more capital.

#### 4.1.6 Pivoting

All of the entrepreneurs said that they have changed their original concepts to some extent, but in different ways.

Vedran Ismaili explained that their idea had to be adjusted the more time they spent with their customers and the more understanding they gained of them:

"It's like when you're standing in the street looking in and you have an idea of what the reality inside looks like, but by spending time with the customer you understand what the actual problem is and what the solution needs to be."

Jonas Ahlberg explained that they realized that their original service was not covering enough of their customers needs. He said they needed to "take a step up in the food chain" for their product to become competitive.

Johan Strömqvist started out with providing a service and while doing so he identified the need for the technical product they are creating today. After deciding to produce a product instead of providing a service, the next step was to decide a market for the product, Strömqvist explained. Since the product had high potential they had to identify where the largest need for their technology was. This was done by finding a customer that needed the product and was willing to test it in collaboration with Strömqvist's company during the development process. Strömqvist also wanted the identified customer to represent a market with great potential.

Hjalmar Nilsonne explained that the functions of their product had changed; originally their startup was supposed to only provide software but later on they realized they needed to produce hardware and combine it with their original software. Now they provide a product that is a combination of the two. He explained that their growth hypotheses and go to market strategy changed along the way, but that the original purpose of what problem they are solving has remained the same: "We've done big changes in direction, both two, three and four times, but [at the same time] I don't think we've really changed anything".

When asked if Qasa changed their original idea, Ludvig Persson Lejon stated:

"[We've changed] a lot from some perspectives. We have created many new functions. But like I said; not so much from a value proposition perspective. We've done a huge amount of changes purely functionally, and we still do it all the time, but the original offer of these 5% for providing safety is intact".

Victor Sandberg explained that they pivoted their idea many times. "I think that's the secret, to not become too proud to leave. Of course it hurts when you do it, it's a tough choice, but it usually pays off to dare".

## 4.2 Findings from interviews with business developers

#### 4.2.1 Introduction

Two business developers were interviewed in this study; Mårten Öbrink and Joel Larsson, further details can be found in the table below. The findings from the interviews have been divided into three sections "Positive aspects related to the lean startup method", "Negative aspects related to the lean startup method" and "Other thoughts".

Table 4.2: List of the interviewed business developers

Name	Company	Position	Entrepreneurial background
Mårten Öbrink	Minc	(Former) CEO	Yes
Joel Larsson	Minc	Program Manager at Fast Track Malmö	Yes

#### 4.2.2 Positive aspects about the lean startup method

Mårten Öbrink stated two main positive aspects related to Eric Ries' book (2011a). First: "the finesse about the book is that it provides you with a language that everyone can relate to", meaning that it enhances the communication between different actors within the startup community. Second, he highlighted the importance of working closely together with the customer and that the lean startup method ensures that the company develops a product that truly goes in line with the customer's wants and needs.

Joel Larsson also commented on the problem related to building a product that no one wants. He said that entrepreneurs are often very talented at product development but often forget to make sure that they are building something that someone actually wants. According to him, the lean startup method teaches the entrepreneur to find a smaller scope to focus on sooner rather than later.

#### 4.2.3 Negative aspects about the lean startup method

Mårten Öbrink advocated the lean startup method but also stated that it should be applied with caution, meaning that it is not suitable for all types of companies. He especially talked about the visionary cases, referring to companies that want to change the world:

"I mean entrepreneurs that do not want to revolutionize the world but instead want to build a company step-by-step based on perceived problems. Or perceived challenges. Then [the lean startup method] is great. But the risk is that you might quit too early. You're lacking the visionary courage. Because to a real visionary (...) the lean startup is destructive, I'd say."

Joel Larsson also mentioned vision when discussing drawbacks of the lean startup method. He stated that the lean methodology might eliminate some of the uncertainty related to starting a company. If an entrepreneur can hide behind the safety of constantly being able to test, validate and iterate in small scale, he/she forgets to set a vision for the company. "Since the risk of failure when starting a business is very high, it is very important to have a driving force", Larsson explained, meaning the driving force to be the entrepreneurial vision. "You cannot iterate the whole way, you have to have a vision, you have to dare taking a couple of bigger steps in a certain direction."

Furthermore, according to Larsson, the lean startup method is about finding a problem and iterating a solution to try to solve that problem. That way the entrepreneur might start looking for a solution in his/her direct surroundings, ending up and getting stuck in a local maximum. As an opposite to the lean startup method Larsson brought up Peter Thiel's book Zero to One (2014), which he described to advocate creating monopoly instead of incremental innovation. Larsson commented that companies such as Tesla or Facebook are hard to build iteratively.

#### 4.2.4 Other thoughts

Neither Joel Larsson nor Mårten Öbrink use the lean startup method as a framework when coaching entrepreneurs. Larsson mentioned that he often recommends people to read The lean Startup (2011a), but when facing an

entrepreneur he does not follow any theoretical models but rather focus on the two following questions: "What problem are you solving?" and "How are you going to get paid?" Though both Larsson and Öbrink have a history of starting companies of their own and both commented that thinking more lean could have helped them in the past. Öbrink explained that working according to the lean startup method would probably have saved his old company a lot of money but on the other hand-they might have shut down the business too early. Meanwhile, today the company is still active and employs around 60 people even though the process of getting there was not always resource efficient. Larsson mentioned that the main insight Eric Ries' book has given him is to not spend too much time building a beautiful product that the market does not want. He had past experience from teams that knew product development perfectly but lacked an understanding of the customer.

Larsson and Öbrink do not teach nor follow the lean startup framework strictly but they both agree on its relevance. Öbrink said that focusing on a problem and trying to find a solution in close collaboration with the customer is ideal for 49 of 50 cases. But for that one other case, meaning the visionary one, he claimed the lean startup methodology being irrelevant to use as business approach. Meanwhile, Larsson stated:

"I think that everyone starting a business reads [The Lean Startup by Eric Ries] and it serves as more of an eye opener so that you don't build something for a year and then just release it. I don't think it provides you with processes on a detailed level but rather an understanding of that you have to build things leaner, more iterative."

Finally, a last comment discussed by Joel Larsson was the innovation accounting promoted by Ries (2011a). Larsson mentioned that it is hard to look at metrics when you run an early-stage startup, since you do not have any data available to analyze. Larsson instead advocated a qualitative interviewing technique where the startup analyzes how the customer uses the product by simply asking the customer questions. He explained the problem with KPI-analysis coming from the U.S..:

"The problem with the KPI-trend is that a lot comes from blogs from USA. Everything that is written about metrics analytics and KPIs come from companies with 30+ employees that have raised 30 millions. And that means that a lot that is written about metrics comes from companies with a lot of traffic. They can measure, they can do A/B-tests and they can test their way to success with the help from statistics. And that doesn't work in an early [stage] business because you have no customers or users. That's a little downswing for early [stage] startups but becomes increasingly important later on in the process"

## 4.3 Findings from interviews with investors

#### 4.3.1 Introduction

Two investors have been interviewed in this study; Kristina Söderberg, who works for a venture capital fund that belongs to one of the largest banks in Sweden and Stefan Lennhammer, who is a private investor. Further details can be found in the table below and in Appendix A. The findings from these interviews will be presented below under "What is important to the investors" and "How they invest".

Table 4.3: List of the interviewed investors

Name	Type of investor	Investment segment	Entrepreneurial background
Stefan Lennhammer	Private	Tech	Yes
Kristina Söderberg	Institutional (SEB)	Fintech, life science, tech	No

#### 4.3.2 What is important to the investors

At the time of the interviews, neither one of the investors were familiar with the lean startup method explicitly. They recognized some of the concepts as useful but not as something they attached great importance to when choosing to invest in a startup.

Stefan Lennhammer commented that it is more important to see that the startup is heading in the right direction rather than trying to get customer feedback as fast as possible. He explained that "you need to think in a long-term perspective; where you want to end up and how you should solve the problem". He also said that it normal that entrepreneurs do not get everything right from the start: "I've never been in a team working on a product where they do the right thing from day one" but instead that "you have to be convinced and believe that if you get this right, then you're solving a big problem".

Kristina Söderberg said that she thinks the climate today has changed when it comes to how investors perceive entrepreneurs and their previous experiences thanks to the lean startup method's positive view on failing:

"... the philosophy has had a breakthrough now much more than before. If you came ten years ago and showed that you had failed, well, then we probably wouldn't have invested in you. Something that some people later on made sure was seen as something positive. Because then you know what to do next time and you've (...) learned so much from that previous journey".

According to Kristina Söderberg, it is considered positive if she could see that the entrepreneur had changed their business model if they noticed that it was not durable:

"...you've maybe changed your business model several times since we last saw you, and that's not a problem in itself, that only shows that you are responsive and aware and understand that 'No this doesn't work, we need to redo it and do it right!'."

Both Kristina Söderberg and Stefan Lennhammer emphasize that what is most important when they choose to invest in a startup is the entrepreneurs behind it. Kristina Söderberg explained that "if I don't have a good gut feeling about the team that's the number one dealbreaker", and Stefan Lennhammer said that he invests in "the entrepreneur first, and the idea second". He also explained that as long as the entrepreneur is the right person for the job, then he can help by building a well-functioning organization around them. He said that the most important skills for the entrepreneur to have are a "will to change, humbleness and respect".

#### 4.3.3 How they invest

Kristina Söderberg explained that when investing in a company SEB Venture Capital takes on an active role in the board but they are never operational. They try to assist as much as possible; e.g. in strategic processes that the company needs help with and that SEB is experienced within:

"[For example] when you want to establish yourself in the American market. You've established yourself in Sweden and the Nordic countries and maybe you have customers worldwide, but no offices in the USA - how do you do that? Then you need both capital and knowledge (...) so in that phase we are active, but it is always the company that runs the

business. We are never involved in, for example, the sales but instead we provide the entrepreneurs with contacts or support in important strategic decisions."

Kristina Söderberg also explained that once SEB consider investing in a company, the due diligence process is standardized and they use a checklist to see that everything is in order in the company. They always invest as a minority investor, meaning that they never own more than 49% of the company and usually less than that.

Stefan Lennhammer seems to be more involved on an operational level than the venture capitalists. Therefore, he explained that he cannot be invested in too many startups at the same time, and that a new investment cannot be in the same development phase as his other investments. Reason being that it simply takes too much time to be actively invested in more than one startup per development phase. Furthermore, Lennhammer also commented that when he faces an investment decision he listens a lot to his gut feeling about the entrepreneur. He stated that it is very important that they get along on a personal level since they will be spending a lot of time together. "The chemistry must be great between the two of us. I invest in the individual and that is extremely important to me".

Regarding one of the current companies Lennhammer is invested in he explained that:

"We came to the agreement that if [the founders] focus on the product, then I will focus on building an organization, a company structure and supplying them with what they need. So you can say that I don't see myself as an investor - I see myself as a company builder. That's a very, very big difference. For me there are three components that are important; the company structure, the organizational structure and the product. If one thing doesn't work then nothing works."

He also explained that when considering investing in a company he does not demand that the entrepreneurs change things that are not in order and then come back later, but that he rather sits down with them and try to fix it together. He said "instead of sending them home for three months we try to help them do what we think they should do in order for us to be able to invest".

## 4.4 Summary of the findings

In order to provide the reader with a comprehensive overview of the results of the study, a summary of the findings from the interviews with the entrepreneurs, business developers and investors can be found in the three tables below.

Table 4.4: Summary of the findings from the interviews with the entrepreneurs

#### The entrepreneurs

#### Positive aspects about the model

- It is a good methodology to keep in mind
- Promotes validation of the vision before investing too much in it
- Useful when in product/market fit and growth phase of the business
- Promotes listening to customer feedback
- Makes the entrepreneur resource-efficient and focus on the present
- Helps the entrepreneur to find his/her business model and market
- Promotes investigating questions and collecting data along the way instead of just thoughtlessly going for the entrepreneur's vision
- Useful to promote learning in a team

#### Negative aspects about the model

- Might encourage the entrepreneur to focus on building small product iterations which leads to:
  - him/her forgetting what need he/she is actually solving
  - him/her forgetting the importance of having a vision
- Could disassemble the business model too much by constantly looking for the added value of each product feature instead of their added value as a whole
- Listening too much to customer feedback could be problematic

#### **Hypotheses**

- Two entrepreneurs actively work with hypotheses the way Eric Ries advocates in The lean startup (2011a)
- Other working methods mentioned in order to find out how to build the business:
  - Customer survey
  - o Close collaboration with customers
  - Design thinking

#### Prototypes/MVPs

- All have worked with MVPs/prototypes to some extent
- · Two of the six entrepreneurs solely use MVPs to technically test certain

functions of the product, not to get customer feedback

#### **Measure success**

- The companies providing hardware used milestones instead of looking at KPIs
- Three entrepreneurs expressed it to be difficult to measure metrics in a very early stage

#### **Pivoting**

All entrepreneurs have pivoted their products to some extent

Table 4.5: Summary of the findings from the interviews with the business developers

#### The business developers

#### Positive aspects about the model

- · Relevant and serves as an eye-opener
- Promotes building products that meet the customer needs by:
  - Promoting close collaboration with customers
  - Helping the entrepreneur to find smaller scopes instead of building an entire product without the influence of customer feedback

#### Negative aspects about the model

- Does not bring up the importance of having a vision
- Might make the visionary entrepreneurs shut down their business too early
- Constant iteration might lead to getting stuck in a local maximum
- Hard to analyze metrics when the company is small and lacking a user base

#### Other

 No one of the business developers use the lean startup method as a framework when coaching entrepreneurs

Table 4.6: Summary of the findings from the interviews with the investors

#### The investors

- The entrepreneur him-/herself is the single most important factor to investors
- Past failures is not frowned upon since it might indicate that the entrepreneur have learned a great deal from that experience
- The entrepreneur's willingness and capability to change is highly valued
- Venture capitalists have a more standardized decision process before investing in a startup than angel investors seem to have The investors are indifferent to the lean startup method

# 5 Analysis

In this chapter the answers from the interviews will be analyzed both by themselves but also in relation to the theory presented in the theory chapter under the paragraphs "The lean perspective in theory and practice", "The entrepreneurs", "The business developers" and "The investors". Under "The theoretical framework" the underlying theory from the literature review will be analyzed and finally, the analysis will be discussed in relation to the research question.

## 5.1 The lean perspective in theory and practice

Since the aim of this thesis is to understand the advantages and limitations of the lean startup method, the findings from the interviews will be analyzed further in this chapter. The findings will also be put in relation to the theoretical framework of the thesis. Therefore, in order for the reader to have the theories fresh in mind when moving on to the analysis, a brief summary of the theoretical framework is presented below.

Table 5.1: Summary of the theoretical framework

<b>Design Thinking</b> N.d.	With the help of an iterative process this method helps to identify and define problems. After truly knowing the problem, a solution can be found with the help of prototyping and ideation. By repeating the steps in an informal, non-chronological way the best possible design for a solution can be achieved. The theory focuses mainly on solving problems and finding suitable products to solve those problems.
The Four Steps to the Epiphany Blank, first released in 2006	In this book Steve Blank coined the term "customer development", where he argues that the entrepreneur needs to "get out of the building" and talk to their customers in an early stage in order to develop the best product possible.

Business Model Canvas Osterwalder, 2009	This is a framework for companies to define their business in a concise and viewable way. By filling out the canvas all parts of a company's business should be incorporated, and the company can define what their core activities are.
The Lean Startup Ries, 2011	The entrepreneur should focus on their potential customer; by quickly letting the customer test their product they will find out if their business model is viable. Ries means that this can be done with the help of an MVP and different experiments that test if the entrepreneur's hypotheses about their business are correct. He promotes the concept "build-measure-learn" that should be repeated in order to develop the product. If the initial hypotheses are not correct Ries means that they should find new ways of being successful by pivoting their idea. He also argues that it is important how the innovation is measured and what metrics that are analyzed in order for the company to draw the correct conclusions about their business. According to Ries, the main purpose of a startup is to turn ideas into products with the help of the build-measure-learn loop.
Running Lean and the Lean Canvas Maurya, 2010	Inspired by the lean startup method that Eric Ries started discussing in his blog in 2008 and by Osterwalder's canvas, the lean canvas is similar to the business model canvas except it has been adjusted for the core activities performed by startups. It does, however, have the same purpose as the BMC, which is to help the company define and summarize their core activities.
Zero to One Thiel, 2014	Thiel argues that competition is a destructive force and that it is better to be completely innovative (going from nothing to something new) instead of simply evolving existing innovations. He means that if the entrepreneur has the customer's perspective as a starting point the product or solution will only be something that is an improvement of existing products and not something that is entirely new.

## 5.2 The entrepreneurs

Half of the entrepreneurs were familiar with the lean startup method before the interviews took place and the other half needed to have the key concepts explained to them during the interviews in order to discuss the method more thoroughly. Unrelated to if they knew about the method beforehand or not they all had both positive and negative things to say about it. No one claimed that they followed the methodology strictly. Instead it was mentioned to be a good approach to keep in mind, indicating it to be a sound way-of-thinking rather than a golden ticket to success.

#### 5.2.1 The role of customer feedback

Steve Blank coined the term customer development in 2006 where he advocated establishing close customer contact already from the very beginning of the company's birth. This paved the way for both Ries' (2011a) and Maurya's (2011) theories where customer feedback and collaboration became crucial aspects of both their books. Ries (2011a) promotes getting customer feedback in an as early stage as possible, so that the startup avoids building something that does not go in line with what the customers want. It does, however, not discuss what other implications close customer contact from an early stage can have on the company's development.

Some of the positive aspects mentioned about the lean startup method were that the method advocates listening to customer feedback and encourages the entrepreneur to collect data along the way - referring to the importance of not developing a product behind closed doors that the market does not want when it is eventually released. Although many interviewees also mentioned the importance of having a vision. Meaning that it might be counterproductive for the entrepreneur to always listen to customer feedback and sometimes ought to ignore their customer's requests in favor of following his/her vision. Based on the conducted interviews it seems like the reason for this is that the customer might:

- 1) ...not be as visionary as the entrepreneur. Say that the entrepreneur is in the very initial phase of starting a company and does not have an actual product yet. Instead he/she has a product idea of a radical innovation that is completely new to the customer. Asking the customer what he/she thinks about the product might not be helpful since the customer might be incapable of understanding the greatness of the entrepreneur's idea. The same might be applicable to companies in a later stage that require a long time to become profitable or have a very technically advanced product with long development phases. Then the generated customer feedback might not be as relevant; instead the vision should be the driving force of the company.
- 2) ...not know what he/she actually wants. The customer might not have thought through his/her need as thoroughly as the entrepreneur. So if asked what they want, they might give an unrealistic or even inaccurate answer.

3) ...might request product features that could be strategically unwise for the company to proceed with. Following each and every one of the customers' requests might be resource consuming and result in the company building a too heavy product (i.e. a product with too many features making it too complex to use) or a product that does not go in line with the product strategy.

This indicates the importance of knowing when to listen to customer feedback and to learn how to prioritize between vision and customer requests. Especially if the company provides a radical solution that might be hard to understand for a conventional customer. To follow Eric Ries' recommendations in The Lean Startup (2011a) or Steve Blank's theory regarding customer development (2013b) by constantly analyzing customer feedback could become problematic since it might lead to the entrepreneur getting discouraged and not continue developing his/her radical ideas. Peter Thiel's recommendations in his book Zero to One (2014) might instead be more applicable for visionary cases, since he opposes the lean way-of-thinking and advocates risk taking behaviors in order to become successful.

Furthermore, the original cause of the company might also affect the relevance of getting customer feedback; if an entrepreneur starts by finding an unmet market need and builds a product to meet that need, as mainly suggested in the theory of design thinking, or if the idea comes first and finding a suitable use for it comes later, as is mainly the perspective used by Ries in The Lean Startup (2011a). The latter might require more customer feedback while the first option might indicate that there already is a demand since an existing need already has been identified.

#### 5.2.2 Long-term planning

The findings indicate that startups providing incremental solutions might benefit from working according to the lean startup method since it seems to be well adapted for that type of innovation. The method advocates minimizing risk by iterating and listening to customer feedback (as does e.g. customer development), which goes well with products that improve already existing solutions. Although, as has also been seen in the findings and mentioned by Peter Thiel (2014), continuous iterations might hamper the company's long-term planning by laying too much focus on the near future and might cause the company to end up in a local maximum. Therefore, even incremental entrepreneurs might be wise to take

other methods into consideration. In order to survive in a long-term perspective the entrepreneur should perhaps follow Thiel's advice to set up a plan and dare to take risks into some direction. By e.g. using the business model canvas the startup can break down the different value-adding pillars of the company to really understand what aspect to focus further on in the future and what to change.

#### 5.2.3 Hypotheses

Vedran Ismaili and Hjalmar Nilsonne explained (directly or indirectly) that they have worked actively with hypotheses the way Eric Ries advocates in The Lean Startup (2011a). Others mentioned alternative tools or methods for building a successful business. Ludvig Persson Lejon used a customer survey to decide the pricing model for Qasa and Jonas Ahlberg started his entire business with the aim to replace an existing service for a company and therefore had a close collaboration with their first customer. This implies that working with hypotheses might not be the most applied concept from Ries' book but it was still obvious that many of them sought customer opinions early on in the development phase, as promoted by both Ries (2011a) and Blank (2013b). This insight in relation to what was mentioned above under "The role of customer feedback" again indicates the importance of knowing when to listen to customer feedback and when not to. Jonas Ahlberg for example, who is not providing a radical innovation but rather an incremental improvement of existing solutions, described that he valued the close initial collaboration with his customer and that they today only develop features that are requested by customers. If, he added, they go in line with their business model.

#### 5.2.4 Prototypes/MVPs

Ries (2011a) uses MVPs as a tool for the entrepreneur to test their hypothesis and investigate what the customer thinks about the product early on in the development process. This is also advocated in design thinking where building prototypes are an efficient tool to test the generated solutions without wasting unnecessary resources. Among all entrepreneurs interviewed it seems like working with prototypes or MVPs is standard procedure. Though, the purpose of building prototypes varied. The anonymous case describing the attempt to verify customer demand before having an actual product by providing the service manually is an

example described by Ries in The Lean Startup (2011a) called "the concierge minimum viable product". Whereas some of the entrepreneurs only used an MVP during a short period of time, or to get a first "forgiving" reception from customers. Others, namely Hjalmar Nilsonne and Johan Strömgvist, used MVPs to technically test certain functions of their products and not to get customer feedback as proposed by Ries (2011a). It seems like they used their MVPs differently because they are the only ones producing hardware, and therefore have more technically advanced products than the rest of the interviewees. Because building high-tech products indicates extended development times, especially for a startup that might not have established efficient routines yet, and to continuously release beta versions for the customers to try out might initially prove to be impossible, given that the product may require years of work just to function. Also, as in the case of Johan Strömqvist who develops a 3D microscope that will improve e.g. drug discovery processes significantly, customer feedback might not be as important as to other entrepreneurs. Reason being that Strömqvist and his team need no verification of the demand of his product since they are researchers within that particular field and know by experience the need of their own product. Thereby decreasing the importance of gathering customer feedback from beta versions. While entrepreneurs with less advanced products in more competitive markets ought to think differently.

#### 5.2.5 Measure success

No one of the interviewed entrepreneurs seemed to be working with neither innovation accounting nor measuring metrics the way Eric Ries proposed in The Lean Startup (2011a). Several of them expressed it to be difficult to measure success in an early stage since it e.g. requires a large flow of customers in order to measure anything in a reasonable way. The answers also seemed to differ between the hardware and software companies. Johan Strömqvist for example, used milestones instead of analyzing KPIs and explained that success to him could mean that a certain new module turned out to function well with the product. Meanwhile Vedran Ismaili instead promoted talking directly to his customers about their perception of the product. This might indicate that the way to measure success is highly dependent on what type of product the entrepreneur is providing and that the methods Ries advocates in The Lean Startup (2011a) are more suitable for companies that have established a customer base of significant size. In the case of early stage startups, the business model canvas might be more suitable since it

helps the company understand and analyze their operations without requiring measurements of customer behaviors (Osterwalder, 2009). A step further would be the lean canvas presented by Ash Maurya (2012a), since it is adjusted for startups specifically.

#### 5.2.6 Pivoting

As well as the usage of prototypes/MVPs, pivoting seems to be a normal phenomenon among the entrepreneurs' businesses. Based on the way they discussed the matter it seemed like a natural part of the growth process and maybe even a must in order to stay alive as a newly started company. While Eric Ries (2011a) explained that the decision to either pivot or persevere a business strategy should be a response entailed by testing the hypotheses, the reasons for pivoting among the interviewees seemed to differ slightly in reality. While some pivoted in order to become more competitive, others instead did it because their idea of what the customers wanted evolved over time as a result of spending more and more time with them. Some entrepreneurs did radical changes while others made minor ones. This may indicate that it could be wise for the entrepreneur to be open to changes and not get too attached to their original business ideas. Because even though the entrepreneur feels sure about having perceived certain matters accurately, it may differ significantly from what actual users of the product will think. Given that all entrepreneurs have pivoted their products or strategies to some extent it implies the difficulty of getting everything right from the start. Again, this idea should be put in relation to the argument regarding the importance of following a vision, to find a balance between what the market indicates that it wants and the actual vision of the entrepreneur.

## 5.3 The business developers

The interviewed business developers, Mårten Öbrink and Joel Larsson, both agreed on the relevance of the lean startup method but none of them directly teach it to the entrepreneurs they are coaching. It was mentioned to rather be an eye-opener than a strict guide to success, similar to what the entrepreneurs expressed it to be.

As with the entrepreneurs, one main thing that the business developers praised was that working according to the lean startup method helps the entrepreneur to not waste time on building something that no one wants. This indicates that spending unnecessary resources on building features that provides no added value might be a recurring problem among entrepreneurs, confirming the very essence of the lean startup method. On the other hand, both Mårten Öbrink and Joel Larsson brought up the discussion regarding entrepreneurial vision, as was also discussed among some of the interviewed entrepreneurs. Again, it seemed to be widely established that while the lean startup method provides the reader with both useful tools and a sound way-of-thinking, it must not be followed slavishly regardless of what type of innovation the entrepreneur is building. As Mårten Öbrink stated, to follow the lean startup method could even be counterproductive for entrepreneurs that have the ambition to change the world with their radical innovations. Meaning that the method might give the entrepreneur indications that his/her innovation will not be appreciated by the market and thereby stopping him/her from following their original vision. In Zero to One by Peter Thiel (2014) this is also mentioned; he does not believe that the lean startup method can create truly innovative products since, according to him, it only helps to improve existing solutions.

Larsson mentioned that the lean startup method provides a lot of measuring tools for startups that are of significant size, which adds a time and size aspect to the discussion. If the authors of this thesis were to interview Silicon Valley startups with more than 30 employees and millions of dollars in raised capital, the lean startup method might have been reviewed differently. Most of the interviewed entrepreneurs in this thesis have recently started businesses with customer user bases that might be hard to measure as of now. Implying that later on in their process the lean startup method might come to add greater value and increase its relevance for the entrepreneurs. In order to analyze the success of a business in a very early stage, Larsson instead promoted qualitative customer interviews - something that was also promoted by a couple of the entrepreneurs.

Both Öbrink and Larsson had an entrepreneurial background and stated that working more "lean" would have helped them in the past, referring to wasting less time and money on unimportant matters. However, Öbrink also explained that if he were to work more according to the lean startup method at the time being, he would most probably have shut down his business "too early". Indicating that the method might have the ability to discourage entrepreneurs to maintain businesses that have been bleeding for too long; forgetting that it sometimes requires resource

wasting, in terms of time and money, to be able to build something of great value further along the road.

#### 5.4 The investors

Neither one of the investors were familiar with the lean startup method in detail, as assumed beforehand by the authors. However, the authors of this thesis still deemed it to be relevant to include and analyze the investors' opinions since they play an important role in the startup scene and constitute an institution that startups must relate to and often depend upon. Ries only discuss investors briefly in The Lean Startup (2011a); they are mainly mentioned under the chapter of innovation accounting where Ries says that it is important for the startup to be able to show their progress to their investors in a reliable way.

Stefan Lennhammer, who is a private investor, seemed to value the idea and mindset of the entrepreneurs more than their business process thus far. His investment decisions seemed to be strongly run by personal emotions. This is probably due to the fact that Lennhammer invests his own capital and takes on a more active role than an institutional or venture capital investor normally would do. By being more involved he works closely with the entrepreneur and can therefore affect the organizational structure and day-to-day operations of the company in a different way. Hence, the business idea and the entrepreneur's personality seem to be the most vital keys to success for his investments.

Meanwhile, Kristina Söderberg has a more standardized process before choosing whether or not to invest in a startup. However, she emphasized the importance of the entrepreneurs' mindset as well but when facing a decision regarding whether to invest or not, a formal due diligence procedure is also executed. She said that SEB value if the entrepreneur can show that they can pivot their idea over time so that it fits the market. Indicating that they appreciate if the entrepreneur can work in an iterative manner as suggested both in the lean startup method and also in design thinking; i.e. showing that they can develop and improve their business concept over time. Here the business model canvas might also be a more suitable theoretical model to work with in regard to venture capital investors since it helps the entrepreneur analyze and understand their company; this provides a

transparency that might facilitate the due diligence done by the investors before they choose to invest.

The Lean Startup (Ries, 2011a) tries to provide the entrepreneur with a roadmap describing how to succeed. In a sense this can be compared to how larger venture capital firms work, since they handle a large amount of startups and try (with the help of experience, certain parameters and standardized procedures) to understand which of the startups that have a chance of becoming successful. Meaning that venture capital firms, as with Eric Ries' book, also apply a methodical approach with the purpose of becoming successful (and of course profitable). On the other hand, Stefan Lennhammer only invests in a handful of startups at the time, with capital that is his own. It seems like business angels, such as Lennhammer, value other parameters when choosing what startup to invest in than a venture capital firm does. Partially because Lennhammer invests in a smaller amount of startups but also because his role as a business angel is, as mentioned above, more active in the startup once he chooses to invest. Hence, it might be reasonable to assume that the entrepreneur, his/her vision and personality is more important to Lennhammer than what methods the entrepreneur apply when running the company. While to institutional investors and venture capital firms, hard facts might instead be of greater value.

It is clear that the entrepreneur is important to both business angels and venture capital firms, and that the concepts of the lean startup method are not as relevant to them. Parts of the work process that is suggested by Ries (2011a) can be seemingly helpful for the entrepreneur when trying to find investors, since Kristina Söderberg said that being able to have an iterative work process is seen as something positive. The lean startup method advocates that the entrepreneur clearly can define what problem they are solving and what value they provide to the customer, something that is also valued by an investor. However, the results of this thesis do not show that working with the lean startup method is a crucial tool that when raising capital. When Ries (2011a) comments on investors in The lean startup he refers to that it is important to have a structured organization that can show that the startup is making progress - which is also something that Söderberg commented on as being important when they review potential startups.

#### 5.5 The theoretical framework

It is obvious that the different theories brought up in the theoretical chapter are related to each other in many ways, implying that the authors have inspired each other a great deal. As an example, the business model canvas, which is one of the older models presented in this thesis, provides the user with a tool to understand how the different parts of the company create value to the customer. Before the business model canvas was created and became established there were many similar definitions of what a business model could and should look like. Later, at the same time as Eric Ries developed the theories behind his book The Lean Startup (2011a), Ash Maurya was also writing Running Lean (2012a), where he presented his new version of the business model canvas, called the lean canvas. Maurya stated in his blog that the inspiration for the lean canvas came from the business model canvas but also from Steve Blank's book The Four Steps to the Epiphany (Blank, 2013b; Maurya, 2012b).

The concepts of the lean startup method can be recognized both in design thinking and in Steve Blank's book The Four Steps to the Epiphany (2013b). The iterative work process and the close customer contact can be found in all these models and it is clearly something that Ries further developed in The Lean Startup (2011a). Ries (2011a) states that The Four Steps to the Epiphany was an inspiration when writing his book. He allowed Blank to test his model on his own company and the theoretical model that Ries (2011a) proposes is a clear development of Blank's (2013b) concepts "customer development" and "idea validation" that in Ries (2011a) book are referred to as "testing hypothesis" and the "build-measure-learn loop". Blank (2013b) promotes that the entrepreneur should "get out of the building"; a concept that Ries (2011a) also mentions and further develops when he emphasizes how important it is to test the product with different sorts of experiments. By using experiments to test he thinks that the original hypothesis can be either validated or rejected. The main focus is to use the end customers as a feedback to decide if the idea is good or not, and to try to discover in an early stage what the customers want. Hence, it can be seen that The Four Steps to the Epiphany by Blank (2013b) was of great importance not only to Ash Maurya (2012a) but also to Eric Ries (2011a).

Again, the theoretical concepts are similar since they have been developed and evolved in relation to each other. The way they are presented differs but it can be seen that the majority of the theory in The Lean Startup by Eric Ries (2011a) is not new. The work process he proposes is different and e.g. the build-measure-learn loop, which is a concrete tool for the entrepreneur, can be compared to the rather similar iterative process part of design thinking. Since the concepts themselves presented by Ries in The Lean Startup (2011a) are not completely new this may be an explanation to why the book spread so quickly and became widely established among business developers and entrepreneurs. It seems like Ries (2011a) book sums up concepts from different places and presents them in a comprehensive and easily accessible way for the reader.

The one theoretical model that differs is Zero To One by Peter Thiel (2014) where he directly argues against the concepts suggested by Eric Ries (2011a). Thiel's model is included in this thesis because it was brought up by several of the interviewed entrepreneurs and business developers. Thiel (2014) proposes that competition can be bad and even harmful for a startup, and that the most important thing is not to be lean, as Ries (2011a) suggests, but to be as innovative as possible. Thiel (2014) also thinks that operating lean and incrementally means that the entrepreneur does not plan for the future but rather sees how it goes with the help of tests and experimenting. This is something that some of the entrepreneurs and business developers also mentioned when being interviewed, that using lean can mean losing the long-term perspective.

It can be seen in the findings of this study that the entrepreneurs use some of the theoretical concepts presented in the theory chapter in real life. However, none seem to use any entire theoretical model meticulously as a whole but rather apply parts of them where they find it suitable; such as using hypotheses and the different ways of testing and building MVPs as suggested by Ries (2011a). Mårten Öbrink said that an advantage of the lean startup method is that it provides the entrepreneurs with a common language to refer to, this seems to be true since all the entrepreneurs were able to discuss the concepts from the method even though some of them needed the model explained to them briefly in order to do so. It can also be seen that the different theoretical models seem to be suitable to apply within different contexts, for example the business model canvas might be more suitable when working with investors, and maybe also the lean canvas since it is especially adapted to entrepreneurs and startups.

# 5.6 The advantages and limitations of the lean startup method

The analysis of the findings will help to answer the research question "What are the advantages and limitations of the lean startup method?" Therefore, this section is divided into two parts; the first part will discuss the advantages and the second will discuss the limitations of the lean startup method.

#### 5.6.1 The advantages of the lean startup method

Overall, the findings indicate that the lean startup method advocates a sound entrepreneurial mindset. It promotes resource efficiency and close customer collaboration in order to ensure that the entrepreneur is creating something that actually adds value to the customers - which otherwise seems to be a commonly recurring problem among entrepreneurs. Furthermore, by working according to the lean startup method the entrepreneur is forced to reflect upon his/her business by constantly trying to learn what the customers want and need. This does not only increase the resource efficiency but also trains the entrepreneur in analyzing the business and thereby enforces a greater understanding of his/her context, which is something that is valued by stakeholders such as investors.

The lean startup method describes pivoting as a crucial part of the process of becoming a successful business, something that the findings of this thesis imply as well. One might say that the lean startup method promotes a willingness to change - which is an entrepreneurial trait that the investors also appreciate. Meaning that it is of great importance not to get too attached to ideas that might prove to add no value and to realize that sometimes a change of direction is required in order to stay competitive. Indicating that the entrepreneur is wise not to get too proud about his/her product and instead be realistic and open to change.

The findings imply that the lean startup method actually provides the reader with a set of tools and hands-on methods that can help the entrepreneur in working more lean. It turned out that several of Eric Ries' (2011a) suggestions were actually

applied by many of the interviewed entrepreneurs, such as setting up growth hypotheses and using a concierge minimum viable product.

Working with MVPs or prototypes seemed to be more rule than exception. Ries (2011a) promotes the use of MVPs with the purpose to test the hypotheses set up by the entrepreneurs, which was not always the case among the interviewees since most of them do not work hypothesis driven. Though, the idea behind building MVPs is basically to get test data from a product as soon as possible and thereby preventing the business from developing an entire product behind closed doors that turns out to be neither viable nor desirable in the end. Implying that for whatever reason the entrepreneurs decide to work with MVPs - if it so is to technically verify certain functions or to get customer feedback - it is a well-established and efficient way of working.

Finally, the original idea of the lean startup method is to set up hypotheses about the business model that are to be tested in order to be validated as true or false. It advocates constant learning from the received customer feedback and therefore there is also an acceptance of failure. Meaning that if some of the tests receive negative customer feedback, this will not be frowned upon but will rather be used as a key insight about how to improve the business. Something that was also emphasized by some of the entrepreneurs.

#### 5.6.2 The limitations of the lean startup method

Even though Eric Ries (2011a) explains in his book that the lean startup method can be applied "in any size company, even a very large enterprise, in any sector or industry" the results of this thesis say otherwise. It seems like the method is harder to apply for companies that build very high-tech products, which might be due to the development times being longer than for less advanced products. Building small iterations of hardware with the purpose of letting customers test and review them might prove to be a technically impossible way of working. If the product also has a verified demand before being released, as may be the case with e.g. certain life-science products (such as Johan Strömqvist' 3D microscope that will radically improve drug discovery processes), then the importance of customer feedback might also be less significant than to entrepreneurs building e.g. incremental software solutions.

On the same note, the findings indicate that another limitation of the lean startup method is that it does not seem to be well suited for companies building radical innovations. Since one of the most important pillars of the lean startup method is to listen to customer feedback, it implies that the customers' opinions are always right. Which can become problematic if the entrepreneur builds a radical innovation that might be hard for the customer to understand the greatness of. The risk of getting "negative" feedback might increase the likelihood of the entrepreneur losing his/her motivation to continue working on the product. Furthermore, another problem related to listening too much to customer feedback is that the customers might not always know what they want themselves and request things that would make the product "too heavy" (i.e. containing so many diverse functions that the overall functionality of the product decreases) or not go in line with the company's overall product strategy. Indicating that one of the most valued aspects about the method, i.e. the advocacy of close customer collaboration in order for the entrepreneur to build something that the customers really want, can also be turned into a limitation. Depending on what company the entrepreneur is trying to build.

This brings the analysis over to something that both the entrepreneurs and business developers mentioned to be a limitation of the lean startup method; it lacks a thorough discussion regarding the importance of having a vision. There is a consensus that the method is helpful for startups to become resource efficient and to not develop a product that no one wants to buy. However, they also think the method can be harmful for the startups' vision and ability to think in a long-term perspective. This is due to work process promoted by Eric Ries (2011a). He states in The Lean Startup that it is important to use the build-measure-learn loop in an iterative manner, but testing and working in an iterative manner could also risk that the startup loses track of the original goal and only focuses on small improvements of the product. Leading to unnecessary resource wastage on building endless iterations and thereby losing the entrepreneur's vision and long-term direction. As expressed before by Joel Larsson: "You cannot iterate the whole way, you have to have a vision, you have to dare taking a couple of bigger steps in a certain direction."

Another limitation of the lean startup method is related to in what lifecycle phase the company is. From the findings it has become clear that it is hard - and sometimes even meaningless - to try to measure KPIs in a recently started company. Because in order to analyze metrics the company has to have a customer

user base of significant size, otherwise it may give misleading results or even prove to be impossible to measure anything at all. Mårten Öbrink also spoke from experience when saying that working lean can make the entrepreneur quit too early, since it speaks strongly against unnecessary resource wasting. Some companies might require a longer time of bleeding resources in order to become successful in a later stage; meaning that the lean startup method might be discouraging for young companies.

Finally, another identified limitation of the lean startup method is that it risks breaking down the company's business model too much; constantly validating each function's added value for the customer might lead to the entrepreneur missing out on synergy effects that the functions create together as a whole. Once again implying that the entrepreneur is wise to have a clear idea of what need he/she is solving, what vision he/she has and to what extent customer feedback should be taken into consideration.

## 6 Conclusions and final remarks

In this final chapter the conclusions will be presented, i.e. the research question will be answered and the implications and limitations of the findings will be discussed. Furthermore, the authors will give suggestions for future research on the field of study and finally make some concluding remarks about the thesis.

### 6.1 Answering the research question

The research question of this thesis is:

"What are the advantages and limitations of the lean startup method?"

In order to answer this question in an easily accessible way the authors have summarized the findings, i.e. the advantages and limitations of the lean startup method, in the two tables below. First, the advantages of the lean startup method:

Table 6.1: The advantages of the lean startup method

#### Advantages of the lean startup method

The lean startup method provides the entrepreneur with an overall sound way-of-thinking and serves as an eye-opener to many.

It highlights the importance of close customer collaboration and listening to customer feedback so that no resources are being wasted on building something that the customer does not want in the end.

By applying the lean startup method it forces the entrepreneur to reflect upon his/her business, which is appreciated by investors.

It highlights the importance of knowing when to pivot the business into a new direction.

It provides the entrepreneur with a great set of tools and hands-on recommendations

regarding how to manage and measure their business in a smart way.

The method promotes working and releasing beta prototypes instead of final products in order to verify the business model as soon as possible.

It promotes learning from experience, meaning that even failures can be valuable for the business development.

Below the limitations of the lean startup method are listed.

#### Table 6.2: The limitations of the lean startup method

#### Limitations of the lean startup method

The Lean Startup (2011a) lacks a thorough discussion regarding the importance of having a vision.

Working according to the lean startup method may hamper the company's long-term planning by focusing too much on minor product improvements and iterations instead of setting up long-term goals.

The method implies that the customer is always right...

- ...which can be harmful to entrepreneurs working with radical innovations, since customers might not be as visionary as the entrepreneur and thereby discourage him/her by giving negative feedback.
- ...which can be harmful for entrepreneurs regardless of what type of product they are providing, since the customers might not know what is the most efficient way of solving their problem and therefore give misleading feedback and/or product requests.

The method is less meaningful for companies that have a verified demand from the start since the importance of customer feedback is decreased.

The lean startup method is not as easily applicable in high-tech companies. Reason being that it can be harder for them to iterate their product than it is for companies that provide less technically advanced products due to extended development times for high-tech products.

The lean startup method might be hard to apply in recently started companies that do not have a customer user base of significant size to e.g. measure and analyze.

The lean startup method does not allow for a company to bleed resources, which might lead to entrepreneurs getting discouraged and instead of allowing it to take some time they quit their business too early.

The lean startup method might disassemble the company's business model too much and thereby miss out on the added value that synergies of several smaller business features constitute as a whole.

### 6.2 Recommendations to entrepreneurs

Based on the analysis of the findings the authors have drawn some conclusions regarding recommendations to entrepreneurs or people who are thinking about starting their own company. In other words, what could an existing or soon-to-be entrepreneur learn from the findings of this thesis?

First, the authors recommend all entrepreneurs, future or present, to read The Lean Startup by Eric Ries (2011a) since the overall message of the book has shown to be appreciated by most participants in this study. This has not come as a surprise to the authors since the results from the literature review show that the book consists of a selection (at least to some extent) of concepts from many other popular theories and books. The Lean Startup simply represents a sound way-of-thinking when working with scarce resources and highlights the importance of not wasting time and money on building something that no one wants. Though, one should also be aware of the fact that working strictly according to the lean startup method will probably not ensure success in itself. Even though Ries (2011a) states that the method can be applied in any type of company and industry, the results of this thesis say otherwise; indicating that it might be more problematic to certain companies than to others. The authors therefore recommend existing or soon-to-be entrepreneurs to thoroughly analyze his/her purpose with the business and what he/she aims to achieve in the end. If the entrepreneur has a vision that he/she strongly believes will change the world, then the lean startup should not hinder that vision by implying otherwise. Though, by having a sober outlook on his/her situation and by trying to gather customer feedback as soon as possible, even the visionary entrepreneur can reduce unnecessary resource wastage and identify critical aspects to change about the business model. Meaning that rather than ignoring customers' opinions one should take it all into consideration and decide along the way when to listen to conflicting feedback and when to follow the gut feeling. The authors would however like to emphasize that it is important for the entrepreneur to keep their long-term perspective and vision in mind before deciding to talk to the potential customers.

#### 6.3 Discussion of the results

In this section the implications and limitations of the findings will be discussed further.

#### 6.3.1 Implications of the findings

By investigating the advantages and limitations of the lean startup method the authors hoped to help existing and soon-to-be entrepreneurs to gain a better understanding of the method. The authors have come to the conclusion that while the method advocates a sound mindset and provides a great set of applicable (and popular) tools, there are also limitations as to whom the method is most useful. It seems that it mainly depends on what type of company the entrepreneur wants to build; what type of product the entrepreneur provides and what the underlying vision is. If the entrepreneur has a radical idea of a product that he/she believes can change the world, then the lean startup method might be problematic since it depends a great deal on customer feedback and promotes a less risk taking behavior. It might also be harder for entrepreneurs building technically advanced products to apply the method due to its focus on constant product iterations. Meanwhile, companies building incremental products might benefit a great deal from working strictly according to the lean startup method since it might lead to a decreased time-to-market and more satisfied customers. Meaning that the entrepreneur is wise to thoroughly think through what type of product he/she is building and what his/her vision about the company is, before deciding on what aspects of the lean startup method to use and what to ignore.

Finally, applying the lean startup method will not guarantee success in itself; it will not magically attract risk capital or ensure a market leading position. However, it can force the entrepreneur to think about what he/she wants to accomplish and help the entrepreneur to understand the meaning of building something that the market actually wants, with as little waste as possible.

#### 6.3.2 Limitations of the findings

As mentioned in the Methodology chapter of this thesis, it can be hard to discuss validity and reliability in relation to qualitative research since the results do not consist of measurable data but instead be, for example, a conversation between the interviewer and interviewees. Which, of course, is highly subjective and hard to generalize to other social environments. The authors of this thesis are aware of this limitation and have provided the reader with thick descriptions of the interviewees (Appendix A) so that the reader can decide for him-/herself if the results might be applicable on other cases or not.

Two other main limitations of this master thesis have been identified. The first one is the time frame (20 weeks) of this project. As mentioned in the Methodology chapter, the internal validity, first discussed by LeCompte and Goetz (1982), can be ensured over time, meaning that the more time the researchers spend in the studied environment the higher the resemblance between the concluded theory and the observed reality would become. Implying that if the time frame would be extended the results of this thesis could become even more accurate than they are as of now. Leading the discussion over to the second identified limitation; the number of interviewees. It turned out to be quite a challenge to get hold of entrepreneurs that were willing to participate as interviewees - which the authors assume were due to the entrepreneurs' hectic schedules and overall lack of time. If the time frame of this thesis would be extended it would have been possible to get in contact with more entrepreneurs, which could have improved the credibility of this thesis. Furthermore, a greater number of interviewees per product category could also be desirable. Because the findings imply that the lean startup method is not easily applicable for e.g. high-tech companies or entrepreneurs building radical innovations, but the majority of the interviewed entrepreneurs build software, which indicates that interviewing more high-tech entrepreneurs would have been of great interest to support or develop the findings further.

## 6.4 Suggestions for future research

As discussed previously, it is harder to achieve validity and reliability in a qualitative study than in a quantitative study, hence it would be meaningful to conduct quantitative research that supports the results and conclusions of this thesis. This could entail exploring the rate of failure for startups using the lean startup method, in comparison to the one for startups that does not apply the method at all.

The amount of interviewees in this study was limited to 10 participants due to the project's limited time frame of 20 weeks. It could be meaningful to redo the study with a larger group of interviewees in order to further validate the results of this study - and if possible follow the interviewees over a longer period of time. By doing so the researcher can examine if the life-cycle phases affects the company's usage of the method. Based on the implications of this study and in order to further examine for whom the method is most useful, another suggestion is to compare the effectiveness of the lean startup method in relation to different types of companies. For example, one ought to compare a larger amount of high-tech companies to a larger amount of companies working with less technically advanced products. By doing so, conclusions could be drawn regarding what industries are best suited for using the method. The same type of study could be conducted with companies working with incremental versus radical innovations.

Finally, based on the discussions regarding when to listen to customer feedback and when not to, it could be valuable to conduct further research the impact customer feedback has on companies' rate of success.

## 6.5 Concluding reflection

The purpose of this thesis was to understand why The Lean Startup by Eric Ries (2011a) became widely spread so quickly, to get a deepened understanding of the method in itself and to examine what its advantages and limitations are. The analysis of the theoretical framework showed that Ries was inspired by many well-known theories when writing his book, something that the authors of this thesis think can explain why the book became widely accepted by so many in such a short period of time. It is clear that using the method can help the entrepreneur by providing him/her with a methodological way of working with their product, resulting in something that is valuable to their end customers with as little waste of time and money as possible. Though, Ries also claims that any size company within any industry can use the lean startup method successfully - something the authors think this thesis has indicated not to be true.

The authors believe that companies providing incremental products, such as software solutions, can benefit more from working "lean" than companies providing either radical products or very high-tech products, mainly because of two reasons. First, a software solution might be easier to modify than a high-tech product. The iterative work process advocated by Eric Ries is based on the idea that the company can develop a test version of the product in a short amount of time and then easily distribute it to the customers in order for them to test and review the product. For high-tech companies that build products that require years of development before even functioning, this approach seems to be difficult to apply. Compared to, for example, an e-commerce company that instead provides their customers with an online service and basically run all their business via a website. Second, incremental products are easier for customers to understand than radical products and since customer feedback is such an important element in the lean startup method its relevance for radical companies seem to decrease. Expecting customers to not only understand the greatness of products that they have never seen or heard of, but also provide useful input on how to further improve the product, is a lot to ask for. Which thereby makes the lean startup method less useful for companies providing radical innovations. Therefore, the authors reckon that the entrepreneur is wise to evaluate his/her own business; if the provided product is an incremental or radical innovation, and if he/she has a

high-tech or low-tech product, before deciding what way they should organize their customer contact and how (or if...) to apply Ries' tools.

Something that has been brought up in this thesis is the role of customer feedback, since it constitutes an important part of the lean startup method. Ries is clearly positive toward receiving continuous customer feedback and means that the entire business should be driven by the customer's perception of the product. Though, throughout this project, the authors have gotten the impression that the reality is more complex than that. It seems like customer feedback can also have a negative effect on startups and that there is a lack of problematization in Ries' book regarding what it means to let customers' opinions influence product development too much. The customer is likely to give feedback based on his/her perception of reality, which can become problematic due to two reason. As mentioned before, if the product is a radical innovation it can be hard for the customer to understand the product's potential and give relevant feedback. Also, it can result in the company getting stuck in building endless product iterations driven by customers' momentary perceptions. The role of the entrepreneur is to create value to the customer, not only today but also in the long run, and by letting the opinions of customers be the driving force in the company will probably not ensure competitiveness in a long-term perspective. The authors of this thesis believe that the entrepreneurs ought to think through to what extent they should listen to customer feedback and try to balance this with the overall vision and purpose of the company.

While The Lean Startup indeed provides the reader with a great set of useful tools, one should keep in mind that it is written by a Silicon Valley-based entrepreneur. The authors of this thesis have interviewed young, Swedish startups and have realized that many of the tools and concepts in the book are impossible to apply unless the company has come further along in its life cycle. Meaning that Eric Ries' definition of what a startup is might differ from the Swedish definition. Therefore, the authors recommend Swedish early-stage startups to replace a lot of the measurement tools and instead focus on qualitative interview techniques. Also, if one is to properly evaluate all of the concepts and tests mentioned in The Lean Startup by interviewing Swedish companies, it ought to be done with companies that are no longer considered to be startups.

Furthermore, Ries states in his book that using the lean startup method will reduce the amount of failures among startups. The authors of this thesis question if this is true since the close customer contact and iterative work process also seem to hamper the entrepreneurs' willingness to take risks and motivation to be innovative. Can innovation really be created under "lean" circumstances? Perhaps the lean method's resource efficient way of running a company is actually counterproductive for the creativity within a company. When someone is trying to build a "need-to-have" product that is unique, hard to copy and hard to replace and at the same time create a company from scratch - with all the entailed challenges of finding a market, brand identity and corporate culture and values - is it really the right time to focus on preventing unnecessary waste of resources? In order for a company to be innovative and become successful and competitive in a long-term perspective, it might need to bleed resources, at least initially.

So, why do the authors believe that the results of this thesis are of importance? Because the lean startup method spread quickly among entrepreneurs and in academia, without any conducted research that critically review the actual effectiveness of its appliance. Eric Ries boldly states that it can prevent any type of startup from failing, which the results of this thesis speak against. This implies that there is a need of more research regarding for whom and when the method is most suitable to apply. Finally, the authors believe the results to be important because they indicate that the lean startup method indeed represents a sound managerial mindset and that The Lean Startup by Eric Ries might be worthwhile reading for some - but it is not a golden ticket to success. By leading entrepreneurs to believe that one single method will safely grant success in itself seems to defeat the purpose of what it means to be an entrepreneur. Being innovative, visionary and risk taking should to be part of their DNA.

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# Appendix A Description of interviewees

## Appendix A.1 Entrepreneurs

#### Jonas Ahlberg - Founder/CEO of Billecta

Jonas Ahlberg is one of the two founders of Billecta, a fin-tech company founded in 2014. Billecta offers a platform that has automated the invoicing process for both large and small companies - eliminating extensive work related to invoicing which otherwise is divided between the sales department and the financial department. Ahlberg and his co-founder participated in the Accelerator program at Sting during the spring of 2015 and in late 2016 they took in 1.2 million SEK from an angel investor. Ahlberg has a history of working as a corporate finance consultant and later moved on to project financing of wind energy before he chose to start his own business. Today Billecta has five employees.

#### Vedran Ismaili - Founder/CEO of Henry

Vedran Ismaili has studied economics at Stockholm University and Copenhagen Business School before starting his career as a management consultant. As a consultant he worked both with business development projects and mergers and acquisitions, often from a branding or corporate culture perspective. Growing tired of the slow-moving consulting business he decided to start his own company called Henry in 2016. Henry is a service for companies that provides an AI-driven team assistant that keeps track of the teamwork progress. The assistant takes form as a chatbot that communicates with the team members via a chat and follows up on work progress and the well being of the employees. Vedran Ismaili's vision is that within 5-6 years all teams will have some kind of AI-driven personal assistant. He has previously participated in Sting's incubator program.

#### Johan Strömqvist - Founder/CEO of Single Technologies

Johan Strömqvist founded Single Technologies in 2012 and today he employs about 10 people plus some external consultants. He has a background within academia with a master's degree in mathematics, a M.Eng. in physics and a Ph.D in biological physics. During his research he got the idea that later led him to start his own company. Single Technologies builds a 3D microscope that provides high-definition videos of living cells and molecules, which will be used in DNA sequencing and high-throughput screening. Single Technologies is currently in the development phase with a planned product release in the summer of 2017. According to Johan Strömqvist, the microscope will be the world's fastest 3D-imaging system within their field when released. Single Technologies took part in Stings incubator program between 2012-2014.

#### Hjalmar Nilsonne - Founder/CEO of Watty

Hjalmar Nilsonne graduated from the Royal Institute of Technology in Stockholm in 2012 with a MSc. in industrial engineering and management. Before starting university he became convinced that one of the biggest challenges of today's society is the transition to renewable energy and sustainable production, and therefore wished to be part of that reform. Next to his studies he worked with a startup that focused on nanotechnology within the solar energy industry. In 2013 he left that company and founded his own startup called Watty, which employed 14 people last year. Watty is a tool that can track energy consumption in buildings in real time and the idea originated from his time at the university where he taught a course about how to analyze energy data. By being able to analyze big data with their specific machine learning algorithms Hjalmar Nilsonne hopes that Watty will decrease the usage of energy.

#### Ludvig Persson Lejon - Founder/CEO of Qasa

Ludvig Persson Lejon is one of two co-founders of the company Qasa. Ludvig Persson Lejon has an engineering background with a MSc in engineering physics from the Royal Institute of Technology in Stockholm. The company was founded in 2014 and employed four people last year. The idea was inspired by their friends complaining about how analogue the real estate industry is and it later resulted in an online service that offers a marketplace for renting and subletting apartments. Except for being a marketplace Qasa also offers other services that will make

renting and subletting easier and more reliable for both parties, by e.g. taking care of both legal documents and payment in exchange for a share of the rent.

#### Victor Sandberg - Founder/CEO of Luckan AB

Victor Sandberg is one of the founders of Luckan AB that currently offers two services; Locals and Pej. Luckan was founded 2015, and Victor Sandberg is the only founder still active in the company. The original idea was to offer local pop-up stores that later developed into the service that is now called Locals - an online deli offering home delivery from local restaurants and stores to customers in Malmö and Lund. Pej is their latest venture that focuses on enhancing payment solutions with the help of beacon technology, and Luckan AB recently received 2.6 million SEK in investment to fund the launch of Pej. Victor Sandberg has a MSc in industrial engineering and management from the Faculty of Engineering at Lund University, and started working with the early ideas of Luckan during his studies in 2015. Today they employ eight people.

## Appendix A.2 Business developers

#### Mårten Öbrink - (former) CEO at Minc

At the time of the interview Mårten Öbrink was CEO at Minc, a startup community located in Malmö providing startups with services such as incubator programs, coaching sessions, workshops and network contacts. Öbrink has a history of starting several companies himself; Precise Biometrics was his first one, started in 1997, followed by a dozen others until he accepted the position to become CEO at Minc in 2012. As CEO he was in charge of the community consisting of 400 people, both employed business developers and startups. In February 2017 Öbrink quit his job at Minc to become CTO and board member of Orbital Systems, an alumni startup from Minc's incubator program.

#### Joel Larsson - business developer at Minc

Joel Larsson originally has a MSc in information and communication technology from the Faculty of Engineering at Lund University. After his studies he worked at a large company for several years until he decided he wanted to start his own business. Since then he has founded and been involved in several different startups until he decided to instead start working as a business developer. Since 2014 Joel Larsson has been a business developer at the startup hub Minc in Malmö, and since 2015 he is also the managing director for an accelerator program for startups called Fast Track Malmö. Apart from that he is one of the founders of Malmö Startup that is a large meeting place for startups within the region.

## Appendix A.3 Investors

#### Stefan Lennhammer - private investor

Stefan Lennhammer is a business angel, listed as Sweden's most influential private tech investor two years in a row by Di Digital. He started out as an entrepreneur by founding Catella, a company that he led for 15 years until he sold his shares in 2003 and officially resigned from the board one year later. He then founded his own investment company and was requested to go in as a CEO in Stronghold Invest in 2006. A couple of years later he left the real-estate industry to invest in Truecaller, which today is valued at 2.5 billion SEK and in which he owns 10%. Lennhammer describes himself as being an active investor, meaning that he is strongly involved in strategic and operational decisions. This implies that he is only investing in a few companies at a time and when he finds a new entrepreneur that meets his requirements of having the right attitude and a scalable, relevant idea, he lets them focus on their product while Lennhammer himself looks to building a well-functioning organization around them. Today he is also active in Vionlabs, Fishbrain and Albacross.

#### Kristina Söderberg - venture capitalist at SEB

Kristina Söderberg has been working for SEB since 2004 when she started as a trainee in merchant banking. She later moved on to cash management as sales responsible for mid-corporate clients. In 2010 she continued to SEB Venture Capital, first as an analyst and now as investment manager within the technology and life science sector. SEB Venture Capital is responsible of investing a total amount of 2 billion SEK and when a company is sold the money is reinvested into new projects. SEB is always a minority shareholder and is engaged in strategic decisions via the board but never interferes with operational matters. Choosing new investments follows a standardized procedure consisting of investment

requirements and demands that all need to be met by the company in order for SEB to continue with the due diligence process.

# Appendix B Interview guides

## Appendix B.1 Interview guide (entrepreneurs)

#### **Opening questions**

Tell us about your organization - what do you do and what's your role? Tell us about your previous professional experiences! Why did you want to start your own company?

#### The lean startup method

How well do you know the lean startup method?

Tell us about the first time you came in contact with the lean startup method?

What do you think about the method in general?

Can you tell us some advantages with the lean startup method?

Can you tell us some disadvantages with the lean startup method?

Do you think there is something missing in the lean startup method?

#### **Hypotheses**

Have you based your business development on hypotheses?

If yes, tell us how you did that!
If yes, how did you test the hypotheses?
If no, why didn't you set up hypotheses?

#### Prototypes/MVPs

Have you built and used and MVP?

If yes, tell us about that experience! If no, how come you didn't build and use an MVP?

#### Measure

How do you measure your company's success? How do you handle that information? (What do you do with it?)

#### **Pivoting**

Have you pivoted your idea?

If yes, tell us about that experience! If no, why haven't you pivoted your idea?

#### **Concluding questions**

If you were to look back on the experience you've gained from raising your own company - is there anything you would have done differently?

Do you have any recommendations for a person just about to start his/her own company?

Is there anything you'd like to add that we haven't covered so far?

## Appendix B.2 Interview guide (business developers)

#### **Opening questions**

Tell us about your organization - what do you do and what's your role? Tell us about your previous professional experiences! Have you ever started your own company before?

#### **Business models**

How do you coach entrepreneurs today compared to in the beginning of Minc's history?

What business models do you use when coaching entrepreneurs about to start their own companies?

#### The lean startup method

Tell us about the first time you came in contact with the lean startup method? What do you think about the method in general?

In what way would you say that the method is efficient? (How can you decide if it's efficient?)

Can you tell us some advantages with the lean startup method?

Can you tell us some disadvantages with the lean startup method?

What concept from the method do you mainly focus on?

For whom is the model good? Who gets favored by it?

What's the timeframe? Has it become a truth? Has it grown the last couple of years?

How do you use the model in your work?

For how long have you been using it? Why did you start using it?

#### **Concluding questions**

If you were to write a book about business development - what would it be about? How do you think business development will look in 5 years? Is there anything you'd like to add that we haven't covered so far?

## Appendix B.3 Interview guide (investors)

#### **Opening questions**

Tell us about yourself and your background!

What do you do today?

Have you ever started your own company?

If yes, how many?

In how many companies have you invested?

#### The investment process

What makes you want to invest in a company?

How does the process look like when you choose to invest in a company?

Activities from start to end

How is the chain of events constructed?

How do you find a potential investment?

Is the process standardized?

What does your due-diligence process look like?

What do you think the entrepreneur approaching you should have done

beforehand? What should they know?

What are the critical success factors before an entrepreneur approaches you?

What are your deal breakers?

What makes you not want to invest in an entrepreneur?

If you "send home" and entrepreneur - does it happen that they return?

If yes, what do they normally need to improve?

If yes, why can they come back?

#### Strategic decisions

How active is your role concerning strategic decisions in the companies you invest in?

Does it vary? If yes, depending on what?

Let's say you've invested in a company. How do you measure their success? What key metrics do you analyze?

What do you think about the concept "fail fast, fail cheap"?

Are entrepreneurs more prepared today? Do they have a more structured process? Do you see any trends among entrepreneurs today?

#### The lean startup method

Do you know the lean startup method?

If no, skip ahead.

If yes, tell us about the first time you came in contact with the lean startup method!

If yes, what do you think about the method in general?

If yes, can you tell us some advantages with the lean startup method?

If yes, can you tell us some disadvantages with the lean startup method?

#### **Concluding questions**

What advice would you give concerning business development to a person that's about to start his/her own business?

Is there anything you'd like to add that we haven't covered so far?