

## **The best partnering opportunities and market entry strategies for a Finnish start-up venturing into Silicon Valley**

Case company: Witrafi Oy

Niki Matilainen

Sampsa Siitonen



<b>Authors</b>	
Niki Matilainen, Sampsa Siitonen	
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<p>This study examines what methods there are for a Finnish startup to enter Silicon Valley in pursuit of the American Dream. The primary goal is to determine which concrete and accessible alternatives are available in pursuing business in the Silicon Valley for Witrafi Oy, a smart parking startup from Finland. Thus, the aim is to provide information on methods available for the case-company to enter Silicon Valley with varying degrees of resource commitment.</p> <p>The thesis work consists of a theory review, data collection and subsequent analysis with recommendations made on how market entry could be pursued by the case company. The theory discusses funding options for a startup in addition to internationalization theories applicable to an early-stage company. The empirical part focuses on providing viable internationalization options for the case company, finishing with recommendations for Witrafi for various levels of resource commitment. The study involved both quantitative and qualitative methods. A qualitative exploratory research approach was used because the aim of the study was to provide additional information for decision making. Thus, no hypotheses were set in the beginning, rendering the research inductive. Expert interviews (including the case company CEO's) were carried out to determine various aspects of business for a startup in Silicon Valley. The interviews were used to support and augment the theoretical framework. Literature on the topic was scarcely available, which is why expert interviews were highly useful in determining the viable options for startups to enter Silicon Valley.</p> <p>The research identified five viable options for internationalization, each with different levels of resource commitment required. Interestingly, for many options, incorporation was not seen to be required according to the interviews. It is clear that funding for internationalization is highly available from public funding sources in Finland. There is a clear quantifiable benefit of raising funding in Silicon Valley, as funding rounds there (Series A) were 23.2 % larger than in the Nordics.</p> <p>As suggested by the interviews and field research, the competitive environment in Silicon Valley is difficult for any company. However, Silicon Valley is full of opportunities, likewise confirmed by the research: the funding and knowledge concentrated in the area is phenomenal. According to the availability of mainly time and capital resources, Witrafi may choose to pursue one of several market entry options, each with varying benefits and success factors. Nevertheless, the case company should carefully consider if it has the resources and whether there is a chance to succeed due to extreme competition. It should also be noted that market entry could also be done through another US city at first, or generally regarding internationalization, another country might be chosen to pursue a blue ocean market.</p>	
<b>Keywords</b>	
Startup, internationalization, Silicon Valley, market entry, funding, USA, international trade	

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# 1 Introduction

How can a dream factory, in other words a startup, most efficiently pursue the American Dream? How can a startup access the potentially highly lucrative U.S. market, and just exactly what are the benefits of such resource-draining endeavor? This research was made in order to answer to these questions, in the context of pursuing market entry to the Silicon Valley by the case company, Witrafi Oy. The United States is the leading market for any vehicle-related industry and the same is true for innovative parking companies.

Witrafi is a Finnish startup in the smart parking sector, providing products and services for parking operators to be used by their end users, the driving consumers. Witrafi's industry is Intelligent Transport Systems and Services and they are looking for internationalization in several regions of the world. Silicon Valley is just one of many regions they are interested in or have under study. These studies are conducted because Witrafi has realized that to truly succeed, they must quickly search for international markets as Finnish domestic market is small. The case company anticipates insights into how this extremely intriguing market could be entered through Silicon Valley.

The aim is to provide the case company with useful alternatives for entering Silicon Valley. These are to be discussed in a form of options for internationalization into Silicon Valley and based on; how much resources, especially time- and capital-wise there are available. Hence, these options are to vary according to the desired level of intensity, of course, in addition to other deciding factors. Interestingly, as this researches case company is a startup, it must indeed be defined what a startup actually is in the first place.

The theory framework assesses various funding and internationalization theories which have been considered only if they are relevant to the case company. Of internationalization, relevant theories such as; born-global companies and network approach are considered. Furthermore, different market entry modes are introduced. The second part of the theoretical framework deals with international financial management, mainly budgeting and sources of funding. Possible risks factors are likewise discussed.

This thesis is a research-oriented single unit case study and uses a qualitative research approach. Case study involves the unit of analysis, herein the commissioning company Witrafi Oy, and a real world context or phenomena. Qualitative exploratory research approach was chosen because it is suitable when the objective of research is to describe and gain a deeper understanding of issues, rather than draw conclusions from a larger

sample or to give definite answers. The research approach is also inductive, because no hypotheses are presented in the beginning of the research.

The main outcomes of this study introduce the operating environment of Silicon Valley in several ways. The ecosystem of that market is introduced together with possible competition etc. PESTEL is used as a tool to determine the operating environment's characteristics. It is also necessary to determine the possible partners in this internationalization process. These have been identified through the expert interviews and literature review, in addition to theoretical models. Their offered collaboration arrangements are hence examined, each closely related with the possible partner. Naturally, for startups everything comes down to the amount of funding, or lack thereof. Therefore, it is finally important to assess what these possible partnerships and their pursuit may cost for the company.

The study is limited in multiple ways, firstly by determining that the study only considers funding and collaboration. It will only geographically consider Silicon Valley, not the whole country of the United States. This is also a case study made for the case company, therefore the results may not be applicable to others. Funding is a scarce resource for startups, therefore options requiring large investments or expenditures are not considered. The fact that the case company is a startup poses limitations as well. Startups rarely have personnel resources to immediately and exhaustively pursue internationalization. It is only after careful consideration that such operations should be done. Likewise it should be carefully planned exactly whom to send on the required trips to Silicon Valley.

## **1.1 Case background**

The following research is a case study commissioned by Witrafi Oy, an ambitious start-up company working in Intelligent Transport Systems and Services sector. The company is constantly looking for growth opportunities and is seeking additional funding to expedite growth and research and development efforts. In Witrafi's industry the Finnish market is not sufficient to satisfy the company's needs for growth. The company is therefore looking for international markets and opportunities. Entry into foreign market would not only increase the total addressable market size for Witrafi, but could provide new funding opportunities and means to strengthen the organization's competences.

The United States of America is one potential location for Witrafi's expansion. It has the most passenger vehicles driving on the roads. Consequently there is a large addressable market for parking solutions. When it comes to funding opportunities, the U.S. has the greatest amount of venture capital in the world. The country additionally home to some of the best universities and offers an attractive employee market for businesses.

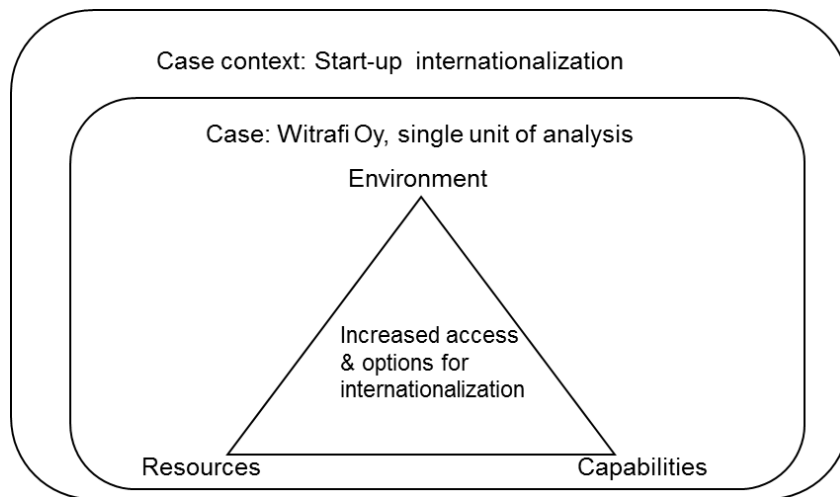


Figure 1. Case introduction (idea for the figure from Yin 2012, 8).

The wider real life phenomenon, the context of this case study, is start-up internationalization as illustrated in figure 1. The following sub-chapters give further information on the purpose, demarcation and structure of this research. Furthermore, chapter four familiarizes the reader with the case company and chapter five discusses the choice of research methods.

## 1.2 Research purpose and research question

The purpose of this study is to examine what are the realistic options for case company Witrafi in potential market entry to the United States of America. More specifically, when the point of entry is San Francisco Bay Area in the state of California. The finished research is a study of different collaborative and funding opportunities available in internationalization for a Finnish start-up company. The research question of this thesis is:

*What are the best partnering opportunities and market entry strategies for a Finnish start-up venturing into Silicon Valley?*

Need for this research is real. There is a lack of similar studies and the topic is important and timely for the case company, which although constrained by resources, has already gained some experience from international markets. The research question of this study incorporates the essential elements to be researched. Investigative questions are introduced in chapter five and further divide the research into more researchable components. The following sub-chapters discuss what exactly is researched and why and additionally introduce the anticipated benefits of this research.

### 1.3 Delimitations and scope

International expansion is a large-scale business phenomenon which could be studied from many different points of view. The context of this case is clearly defined as start-up internationalization, but the research is further demarcated by different dimensions. After negotiating with the commissioning company, which is also the single unit of the analysis, it was decided that this research is geographically limited to Silicon Valley – San Francisco Bay Area, but takes into account relevant opportunities from home market Finland. The research is demarcated to present time, but in some parts also longer-term outcomes are discussed to give the reader more in-depth understanding of the issue.

The biggest single demarcating aspect of this research is the case company Witrafi Oy. The authors strongly emphasize that the case company is a start-up constrained by resources. In fact, the authors decided to demarcate a closer examination of Witrafi's current financial position out of this research and approach the research question from a point of view that Witrafi has little to no own money to be used in internationalization. Furthermore, Witrafi's industry and product are taken into account in this research.

Considering the already introduced dimensions of demarcation the authors decided, together with the case company, that the research should be exploratory rather than give definite answers. That is, the research focuses on **collaborative opportunities** that could realistically increase the case company's access to the target market (figure 2) or be otherwise useful in case company's internationalization.

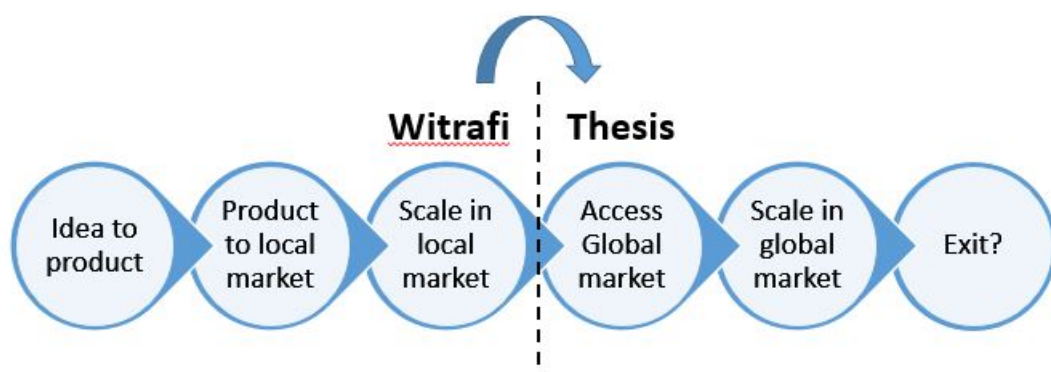


Figure 2. Witrafi's current development stage and the research demarcation of this thesis (Idea adapted from Coppola, A. 2014, presentation).

Realistic collaborative opportunities are those opportunities that:

- Are located within geographical demarcation of this research
- Provide needed resources for Witrafi
- Increase Witrafi's capabilities



- Are free or cost little to Witrafi
- Are known to have previously worked with either start-ups or SMEs

Theoretical framework in parts deviates from the above mentioned demarcation, but only to give the reader an adequate understanding of case context.

#### **1.4 Anticipated benefits**

This research has many stakeholders whom will benefit from it. The two clear beneficiaries are the commissioning company and the students conducting the research. For other companies, especially startups, the finished research may prove to be a valuable resource when they are looking into similar internationalization efforts. The authors entrust that more value is provided to those start-ups that are compatible in the degree of development and industry with the commissioning start-up. Also, it is believed that students and people with general interest in international entrepreneurship will find this research useful. This research will also contribute to the so far rather shallow scientific research conducted in studying startups and their operations.

The business need for the commissioning company is clear: Finland in itself is not a sufficient market in many respects, thus Witrafi has for a couple of years searched for favorable markets abroad. The client base in Finland is small and even when exhausted is not enough to sustain the goals of the company. The commissioning company plans on growing exponentially and heavy emphasis is on research and development efforts. In order to reach its goals, the organization must expand its total addressable market. Additional funding for the growth and R&D efforts is also needed. Finland has a unique, highly educated workforce, which yields experts to various technological field, however when dealing with the newest technologies, even higher expertise is demanded. The research may prove useful when Witrafi plans to venture into other similar highly competitive areas of the world, as certain occurrences, such the presence of competitors will be highly likely.

When considering these factors, the target for the research was chosen to be the United States of America, and Silicon Valley. The U.S.A. has the largest addressable market for parking, being the no. 1 auto country of the world. It also has the greatest amount of venture capital in the world, which is further concentrated into Silicon Valley. The U.S. also attracts the world's top talent in terms of employees. Another thing to consider is the unique talent that Americans possess in consumerism and marketing, which if applied well to a company's marketing, can bring excellent results in the form of increased revenues.

## 1.5 Research structure

The structure of this research comprises seven chapters and five distinct parts (figure 3). The first chapter is introduction where the case background, research purpose and question are introduced and demarcation and other elements of this research case discussed. The chapters two and three comprise the theoretical framework of this research where the authors will focus on the context of this research. First the characteristics of a start-up company are introduced together with how the operating environment shapes start-up operations. Then various internationalization theories, related concepts as well as entry modes are introduced. The second part of theoretical framework will introduce the essential financial concepts related to this research, as well as discusses the various funding options available and risks related to internationalization.

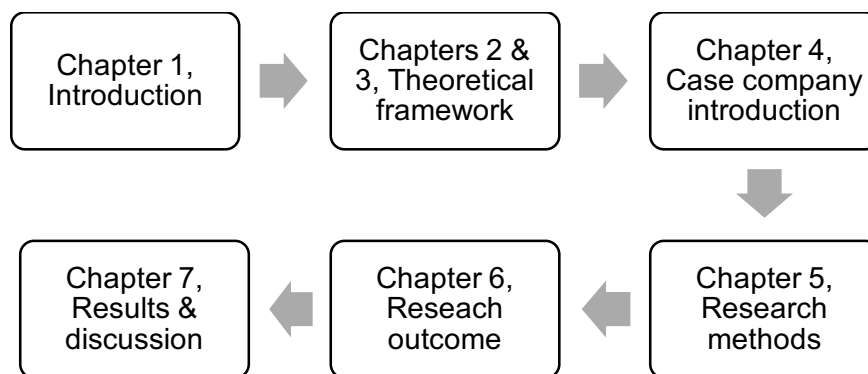


Figure 3. Research structure.

Chapter four introduces the commissioning company of this research. Chapter five will introduce the research methods used, such as how the research is designed and how the data collected and analyzed. Also the aspects of research quality are discussed. Chapter six will present the outcome and data of this research and the authors will provide answers to the investigative questions. The final part of this thesis is a discussion chapter which provides a summary of key findings as well as discusses project management.

## 1.6 Key concepts

In this sub-chapter the authors introduce those concepts and terms that appear in this research or are closely related, but have not been adequately defined elsewhere.

### Bridge funding

Bridge-funding loan is a special type of loan meant to be paid immediately at the time of the next Tekes-grant funding. They are meant as intermediary funding for waiting for the

next Tekes-funding payment, and can be up to 70 % of the estimated payment. (Finnvera Oyj 2016).

### **De minimis**

De minimis is a type of funding which does not taint competition within EU countries. A company operating in most industries can receive government funding of up to 200 000 € within three financial years without having to approve the funding through the EU beforehand. (Regulation on the application of Articles 87 and 88 of the Treaty to de minimis aid 1998/2006)

### **Foreign direct investment**

A firm may choose to enter into foreign market by making a foreign direct investment (FDI). There are different ways on how to make this type of an investment, for example setting up a foreign subsidiary or acquiring an existing entity. Regardless of the method, the fundamental objective of FDI is to acquire control and establish a lasting interest in an enterprise resident of a foreign country. (OECD 2008, 17) When FDI is discussed on a country level, terms 'outward' and 'inward' are used. These days most governments support inward FDI as it supports economic growth.

### **Host country determinants**

Host country determinants are a related concept to foreign direct investment. According to UNCTAD World Investment Report (1998, 91) there are three main determinants that attract FDI to certain host country; policy framework for FDI, economic determinants and business facilitation. The economic determinants can be further divided into market-seeking, resource/asset-seeking and efficiency-seeking investments.

### **Industrial clusters**

When several firms from the same industry are located close by each other it is likely that related and supporting industries will emerge to satisfy the increased demand of that industry. This phenomenon, known as clustering, gives additional advantages to the industry because the geographic proximity of multiple entities leads to increased competitiveness through cost savings, higher quality and innovation within the cluster. (Griffin & Pustay 2015, 191-194)

### **Internalization**

Internalization is a concept where a firm keeps the control of entire operations to itself by creating a monopolistic internal market to produce and distribute products. Internalization theory states that because imperfect market fails to price the knowledge and intangible

capital, operating a costly internal market to keep that intangible capital within a firm may nevertheless be more advantageous than losing it. (Rugman 2013, 11-12)

### **Internationalization**

Internationalization is the process used to describe firm's entry to a foreign market. The decision as to how exactly internationalization happens is dependent on the circumstances such as perceived risk and ability to deal with risk. (Rugman & Collinson 2012, 41)

### **Internet of Things**

The concept of connecting any device with power to the internet, each other or another type of proprietary network. This can include single machines, such as coffee makers, or complex, multi-part machines such as paper machines. It is estimated that by year 2020 the world will have tens of billions of such connected devices. This gives rise to an extensive amount of business opportunities. (Morgan, J. 2015)

### **Opportunity cost**

The cost of choosing one alternative over another. By choosing one opportunity, the possible benefits of the other, unchosen opportunity are forgone; thus becoming the cost of the choice. In investments, it is possible to quantify such a cost by analyzing the returns provided by the two choices of investment. When one investment is chosen, the returns of the other become the opportunity cost. (Investopedia 2016c).

### **Partnering opportunity**

In this research authors refer to partnering opportunity as an identified; real or perceived opportunity for the case company to collaborate with a business partner. Business partner is an individual or company who has/could have a degree of involvement in case company's business dealings, especially when it comes to internationalization (BusinessDictionary 2016).

### **Risk-return tradeoff**

According to the Farlex Financial Dictionary (2012) the risk-return tradeoff can be described as any rational investor, when provided several opportunities maintaining the same level of risk, will only choose the option with the highest reward. This tradeoff is often used in making investment, but also business decisions.

## **Smart Parking**

A type of parking management, smart parking methods maintain a higher occupancy in parking garages. This is done through a more convenient parking experience especially through guiding signage showing a available parking spot. Available spots are mainly sensed with parking sensors, usually mounted in the ground or ceiling, below or on top of a parking space. Smart parking also comprises mobile parking payments, peer-to-peer parking sharing platforms and parking analytics platforms (Baruan, N. 2015).

## **Trade Promotion Organization**

Trade promotion organizations (TPO), also known as export promotion organizations, are government funded or sponsored organizations that offer international trade facilitation services and other support services to focal firms, often SMEs. Their purpose is to help domestic firms to internationalize by reducing market imperfections such as inadequate flow of information, by negotiating lower barriers of entry and by creating a favorable environment for internationalization. (DMI Associates for WTO 2006, 5)

## **Value chain**

The term value chain refers to the categorization of firm's value and profit generating activities. The value chain includes primary and support activities and can be further divided into upstream value and downstream value activities. Primary activities are; inbound logistics, operations, outbound logistics, marketing and sales and service. The production oriented primary activities are 'upstream' activities whereas marketing and sales are 'downstream' activities. Support activities are those activities that support the primary activities, and include procurement, technology development, human resource management and infrastructure. (Hollensen 2014, 27-29).

## **Abbreviations**

<b>IoT</b>	Internet of Things
<b>IPR</b>	Intellectual Property Rights
<b>MNC</b>	Multinational Corporation
<b>R&amp;D</b>	Research & Development
<b>SME</b>	Small and Medium Enterprises
<b>TF</b>	Team Finland

## 2 Characteristics of a start-up, internationalization theories and entry modes

This chapter starts by introducing what is a strategic business environment. Then the concept of start-up is discussed together with some of the defining characteristics of start-up environment and operations. By introducing the backgrounds of strategic business environment and start-ups the authors wish to lay a foundation for discussion about start-up internationalization. The chapter next proceeds to introduce some relevant internationalization theories and finally, the chapter concludes with a brief introduction of various market entry modes.

### 2.1 Strategic environment

All companies have an organizational purpose, often published in the form of mission, vision and goals. To achieve the set goals, an organization needs resources and operations that utilize those resources. The operations consist of; the internal objectives the company has, a strategy how to achieve those objectives and lastly, of the means that are available to conduct the operations. The place where companies operate and engage in business is called operating environment. It consists of physical, social and competitive factors. (Daniels, Radebaugh & Sullivan 2015, 48)

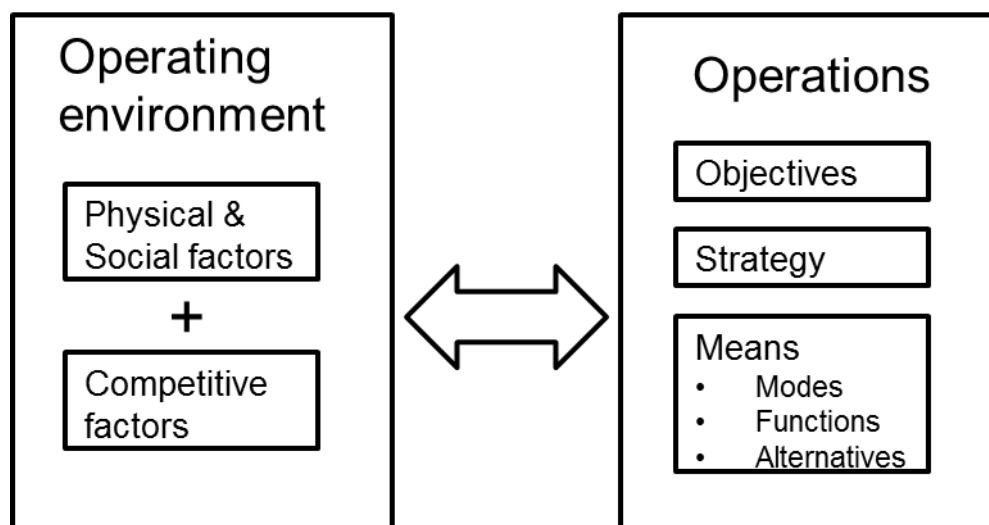


Figure 4. International business operations. (Daniels, Radebaugh & Sullivan 2015, 48)

When companies are formulating strategy they need to be familiar with their operating environment and understand how the different factors affect their business and vice versa. This is especially important in foreign expansion where new physical, social and competitive factors emerge. Also, international trade brings new modes of business. (Daniels, Radebaugh & Sullivan 2015, 48)

Analysis of the strategic environment is beneficial for a number of reasons. In addition to finding out what are the opportunities and threats, an environmental analysis helps in developing sustainable competitive advantages. It may also help identifying possible co-operation opportunities. That said, to make the most of environmental analysis, management should be aware that from a strategic perspective environment is uncertain and ever changing. Strategists are divided into two 'schools of thought', prescriptive and emergent, on how much environmental analysis helps in predicting the future conditions. (Lynch 2012, 75) Prescriptive strategic approach is sequential and the objectives and the main elements of strategy have been defined and developed in advance (Lynch 2015, 31). Emergent approach lacks clearly defined final objectives and the elements of strategy are developed simultaneously (Lynch 2015, 34).

Environmental analysis often begins by defining the market, how much it is growing and how big proportion of the market can be captured (Lynch 2012, 77). Terms total available market (TAM), served available market (SAM) and target market are often used to clarify different market segments. Target market is the portion of the market that can realistically be captured taking into account the available resources and distribution channels. When it comes to market growth rates different industry life cycle models are useful.

### **PESTEL analysis**

When analyzing the general environment surrounding the organization a firm may use a tool called PESTEL analysis. The five letters in the name of signify the factors of the environment that are analyzed: Political, Economic, Socio-cultural, Technological, Environmental and Legal factors. (Lynch 2012, 82)

PESTEL analysis is useful when it's well prepared and addresses those issues that are most relevant to the organization. Richard Lynch (2012, 83) recommends picking two to three most fitting items per factor for more in-depth analysis.

### **E-S-P paradigm**

Richard Lynch (2015, 74) suggests that although PESTEL analysis includes political aspects as one of the items to be studied, the analysis is inadequate when it comes to understanding the role of government in strategic environment. E-S-P paradigm can be used to identify the influences of government policies. Similarly to PESTEL the letters signify the item to be studied, additionally each item consists of components and outcomes. The letter E stands for Environment and includes the background characteristics of a country. The letter S denotes from country's system of government and the letter P means the main government policies. (Lynch 2015, 75)

## 2.2 Definition and characteristics of a start-up company

This research studies internationalization from the viewpoint of a start-up company. Therefore, referring to 2.1 it is necessary to define what is a start-up and discuss what kind of internal and external factors affect start-ups' daily operations. Additionally, other start-up concepts and related issues that are present in Silicon Valley, the target market of this research, are introduced to increase cohesiveness.

Eric Ries, a former entrepreneur and the author of famous "The Lean Start-up", defines a start-up as:

*A human institution designed to create a new product or service under conditions of extreme uncertainty (Ries 2014, 27).*

Steve Blank another well-known Silicon Valley influencer and academician uses the following definition:

*A start-up is an organization formed to search for a repeatable and scalable business (Blank 2010).*

Other definitions exist, but for purpose of this research Riese's and Blank's definitions are a good starting point. It is important to pay attention on the distinction between traditional small business and a start-up. Traditional small business such as a bakery may generate revenue from the day one. There is usually very little uncertainty with the business model. Contrary to a traditional small business, a start-up company may have nothing more than an idea to work with in the beginning. That idea can however be so "**scalable**" that the start-up achieves growth rates unattainable for traditional small businesses (figure 5). Until a start-up can prove it has a working business model, the conditions are in Riese's words "extremely uncertain".

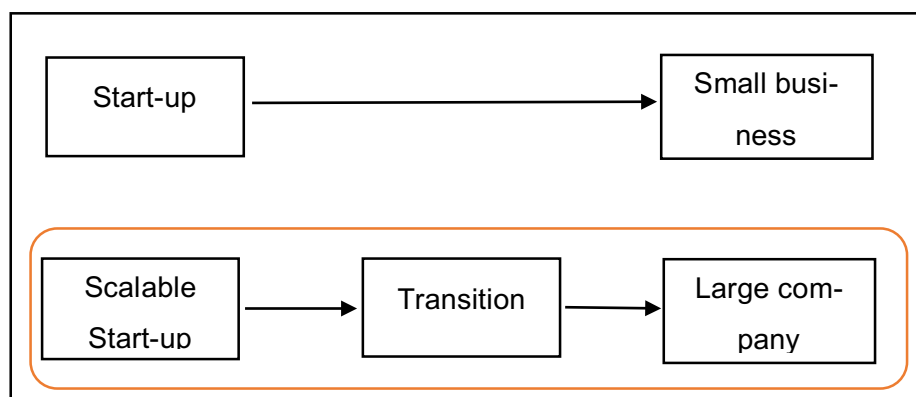


Figure 5. Difference between traditional small business (above) and scalable start-up (Blank, S. 2010b).



Paul Graham (2012) an author, entrepreneur and venture capitalist writes that the most essential characteristic of a start-up company is growth. He points out that millions of companies are founded each year, but very few can actually be called start-ups. Graham uses examples to describe the importance of growth for start-ups. Already from ideation stage the differences between traditional small businesses and start-ups are apparent, even within the same industry. Graham suggests that a start-up would not develop a software to teach Tibetan to Hungarians but rather write a software to teach English to Chinese. Graham also points out that growth is an important indicator of future value of a start-up. A firm that grows 1% per week and starts with \$1000 a month is four years later making \$7900 a month whereas a start-up growing at a rate of 5% a week will four years later be making \$25 million per month. (Graham 2012)

Contrary to Graham's thoughts, Sipola (2015, 31) refers to a study of Henrekson & Johansson (2010) and writes that there is no consensus on how to identify and define high-growth firms. Sipola suggests that in research more attention ought to also be directed to growth processes, rather than measurement of growth (2015, 31). Nevertheless, Graham's points about growth certainly apply to many start-up success stories e.g. Google and Facebook. However, it is difficult for a start-up to grow rapidly until it has at least some sort of concrete product. Therefore, a rapid growth aspect should perhaps be seen as an objective start-ups have, at least until a product is formally launched.

The transition from a scalable start-up to an established company does not happen overnight. Different start-up stages are introduced in 2.2.2 where various start-up developmental models are introduced. There is often ambiguity in the question: "When a start-up is no longer a start-up but rather an established company?" The different developmental models propose that start-ups evolve in stages. Once they reach the final stage they either exit the market or "graduate" from the startuphood. The developmental models fail to address the organizational traits of start-ups. Finnish mobile-gaming success story Supercell far surpasses the financial characteristics of established company but it has maintained its small size and to an extent, its start-up culture.

One important characteristic of start-ups is entrepreneurship, which is the process of creating something new (of value) while coping with financial, psychic and social risks. An entrepreneur is a person who is willing carry all that risk, takes an initiative and creates something new with the resources available. (Hisrich, Peters & Shepherd 2010, 6) In this research when start-ups are referred to, it is implied that the management team or person

behind that start-up possess an entrepreneurial mind-set. That is, he or she has the capability to sense, act and mobilize in uncertain conditions (Hisrich & al. 2010, 13). What makes an entrepreneur has been extensively researched from perspectives of culture, environmental, psychological and cognitive factors (Burns 2014, 27). For the purpose of this research it is enough to understand that entrepreneurial mind-set guides and affects start-ups' decision making processes, and has an effect on their organizational cultures.

It is commonly accepted that entrepreneurial start-ups have an important role in economic growth and job creation. Hence it is natural that governments and policy makers are incentivized to support high-growth firms with favorable policies. According to Sipola (2015, 50) policymakers both in the U.S. and Europe have given more attention on high-technology firms due to belief that they have the most potential for high-growth. Sipola dismisses this belief by referring to research of Acs (2008) which found that there is no evidence of such thing and that high-growth firms can be found from all industries. They are actually likelier in service industries (2015, 50). Thus it is important to recognize that high-growth start-ups can be found from various industries.

Authors of this research would like to point out, referring to Compasses Startup Index (2015, 12), that many of the most well-known start-up success stories have come from industries where digitalization and information technologies have disrupted the older products and services. In some industries the new has entirely replaced the older, while in others the new has at least become noteworthy competitor as Table 1 illustrates.

Table 1. Traditional products and services compared to new disruptive innovations introduced by start-ups. (Adopted from a list of Compass Startup Index 2015, 12)

<b>Traditional</b>	<b>New</b>
Kodak	Instagram
Book stores	eBooks (Amazon)
Music stores, CDs	iTunes, Spotify
Hotel chains	AirBnB
Taxis	Uber
Resumes, HR scouts	LinkedIn
Newspapers	Social media (Twitter)
Retail	eCommerce (AliBaba, Zalando)

Although start-ups are not limited to certain industries, they can be categorized in other ways. Blank (2006, 10) uses the 'type of market served' to differentiate start-ups. According to Blank there are four types of markets for start-ups; new product to existing market,

new product to new market, re-segmented market with low-cost product, re-segmented market with a niche product (Blank 2006, 10). Blank points out that the type of market start-up is serving affects customer acquisition, financing and other important indicators. Another way to differentiate start-ups is, as proposed by Druilhe & Garnsey (2006, 164), by business activity. Druilhe & Garnsey studied university spin-out start-ups and found five types of business activities categorized based on; needs for resources, skills, financing, technology and infrastructure. 1) Contract R&D, technical services, consultancy, 2) license IP (service provision), 3) software start-ups, 4) product companies and 5) creation of infrastructure (2006, 166-168).

It is worth pointing out that Druilhe & Garnsey's research concentrated on start-ups that were university spin-outs. Universities are a major source of start-ups because of their ready infrastructure. They also provide start-up founders with other support measures for example help in research and development. According to Kauffman Index (2015, 8) in 2014 eight out of ten start-ups in the United States were started by an entrepreneur coming out of an employment or studies, while only two out of ten were founded by entrepreneur coming out of unemployment.

Some of the characteristics of start-ups have now been introduced. For this research it is a starting point to first of all, understand what a start-up is and secondly, how the limitations faced by start-ups affect internationalization. However, it has also been established that start-ups are different in many ways. A mobile-gaming start-ups such as Supercell or Rovio can utilize different entry modes in internationalization not available for product oriented start-ups. Nevertheless, many of the limitations all start-ups face are similar and for that reason a more detailed introduction of selected aspects of start-up operations follows.

In conclusion of this sub-chapter, the focus of this research are start-ups that have entrepreneurial founder(s) and an objective of achieving high growth rates by transforming uncertain yet scalable business idea into a working business model.

### **2.2.1 Uncertainty and trust**

Julien and Marchesnay have identified uncertainty as being one of the conditions for entrepreneurship. According to them, an uncertain context is open for new innovations and ideas (in Bernasconi, Harris & Moensted 2006, 4). The concept of uncertainty can be explained by comparing it to risk. Frank Knight (1921, 233) wrote in "Risk, Uncertainty, and Profit" that when uncertainty is measurable in one way or another, it can be categorized as "risk", whereas in case of true uncertainty there is no way of measuring probabilities or calculating the outcome(s) in advance.

According to Dibiaggio uncertainty has two forms; strategic and environmental. Strategic uncertainty occurs when decision-makers are unable to predict reactions of others'. Environmental uncertainties on the other hand, occur when it is impossible to predict future events. Dibiaggio states that both types of uncertainties have significant effect on co-ordination requirements in innovation processes. (Dibiaggio 2006, 35)

Moensted writes that for a high-tech start-up uncertainty arises from many different sources. The fact that a start-up may have a preliminary product, but no proven market causes uncertainty. On the other hand, how can a start-up persuade potential investors and customers when it has no proof that it can actually deliver? There is a paradox of communication, a start-up has to somehow communicate uncertainty as an opportunity with low uncertainty (Moensted 2006, 17).

Secondly, lack of control causes uncertainty. High-tech start-ups often rely on specific skills and other resources that are outside of management's control. How can the management make good business decisions when "not-yet-known" is the standard factor of knowledge basis? (Moensted 2006, 15) Hisrich, Peters & Shepherd (2010, 72) introduce the concepts of *error of commission* and *error of omission* that are closely related to uncertainty and also, to new entry decisions based on the information available. Error of commission occurs when an entrepreneur decides to pursue something based on the information available only to find out that not acting would have been better. Error of omission on the other hand is the opposite scenario and happens when the entrepreneur underestimates an opportunity and his/her own capabilities and as a consequence loses due to inactivity. (Hisrich & al. 2010, 72)

To further complicate things, start-ups' strategic decision making processes suffer from *the challenge of conceptualization*. Research has indicated that because established analysis tools and developmental models are based on previously observed patterns, they fit poorly with the needs of entrepreneurial start-ups. (Moensted 2006, 4-5) The uncertainty is regardless of its source, an integral part of start-up operations. Moensted points out that decisions will always have to be made. Because the importance of decisions tend to be highest in the beginning when there is least information available, many start-ups end up making poor decisions and fail. (2006, 19)

According to Moensted the concept of trust is closely linked to uncertainty and is central to understanding the network relations of start-ups. As was previously mentioned, high-tech start-ups face a challenge of having to persuade potential partners with their project when

there is little concrete to show. Without trust, persuasion is difficult if not entirely impossible. However, as trust is built on past experiences, the credibility of start-up relies mostly on the trustworthiness of those people who recommend start-up's product or service. (2006, 29-31)

Start-ups are challenged by the fact that good business relationships are based on trust and trust is based on past success. Table 2 shows the contradictions faced by many start-ups. On one hand, start-ups need trust to form business relationships, but on the other, they don't themselves fulfil the factors favoring trust. (Moensted 2006, 29-31)

Table 2. Conditions and need for trust. (Moensted 2006, 30)

<b>Factors favoring trust</b>	<b>Need for trust</b>
Credibility of project	High uncertainty/ambiguity
Trustworthy person	No documented history
Good record of experience	Early innovation
Competence of team	No relevant people contacts
Good reputation	New area of work
Predictability	Rapid change
Certainty	Uncertain market

For a start-up trust building is not only important in persuasion of partners. Fukuyama (1995) has suggested that it can also be used to limit costs and to create commitment (in Moensted 2006, 31). According to Latour (1987) trust is built gradually step-by-step and using outside experts in validation is advisable (in Moensted 2006, 31). Moensted points out that start-ups should not forget that trust works both ways. They need to carefully assess to whom they themselves trust, misjudgment can be costly. Also, it is worth a mention that investors are, among other things, looking for people to whom they can trust. (2006, 31)

### **2.2.2 Start-up development models**

According to Moreau (2006, 144) start-up development process has been a subject of multiple academic studies from both prescriptive and descriptive approaches. Moreau suggests that previously proposed models have had some serious disadvantages. Until recently there existed no model specifically designed to high-tech start-ups (2006, 145). Moreau's own study was based on three previous case-studies, 'temporal' and 'integration' criteria and 20 case companies. Temporal criteria means the process of conception

and launch of new products and can be either sequential or simultaneous. Integration criteria refers to the level of coordination when technological, market and financial processes are developed. (2006, 145-146)

Moreau's study found out that high-tech start-ups could be categorized based on four types of developmental models; Type 1 was named simple, Type 2 traditional, Type 3 complex and Type 4 chaotic model. Simple and traditional models are depicted in figure 6 below. (2006, 147-150)

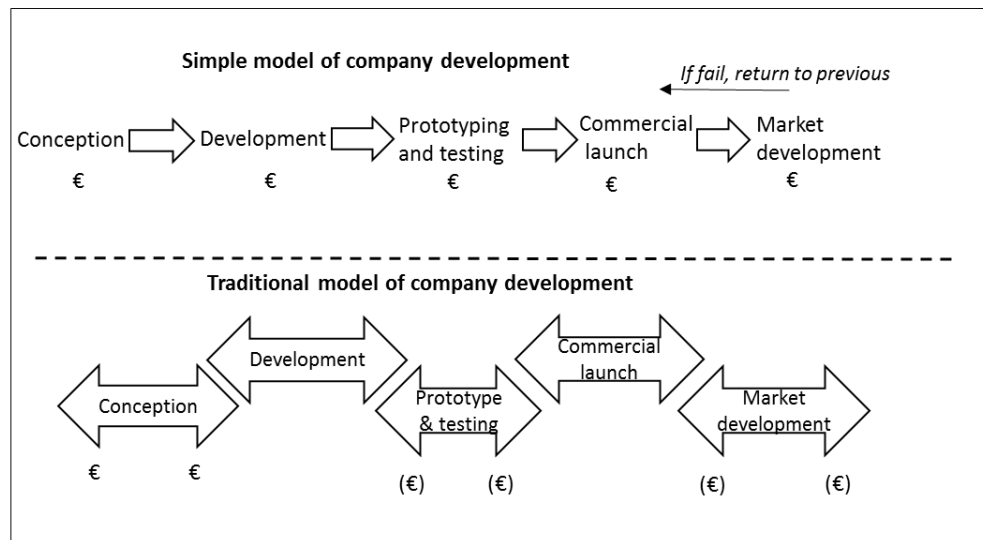


Figure 6. Simple and traditional operational models of start-up development as identified by Moreau (2006, 147-150).

The simple model is consistent with the results of previous studies and five stages can be identified: conception, development, prototype/testing, launch and market development. The stages follow each other in sequence, each requiring increased funding. The source of funding depends on the developmental stage. Simple model has a number of weaknesses. First, it is technology focused and ignores customers, in Moreau's words; "companies sell whatever they develop". Secondly, the fact that the model requires proceeding step-by-step slows down the process and is risky. In case of failures, the firm has to return to previous stage(s) and seek additional funding (Moreau 2006, 147-148).

The traditional model was developed in Silicon Valley and is common amongst start-ups. It is similar to simple model, but has some key differences. Although the stages are same as in simple model and follow each other chronologically, in traditional model they can overlap. Additionally, in traditional model the business model plays a key role and strategy and activities are clearly defined. Another key difference is the use of risk capital. In traditional model risk capital is more widely used as a result of clearly articulated ambitions.

The weakness of traditional model is that it is dependent on risk capital. Although the start-up may return to previous stage, it is often at mercy of investor(s) who may not be willing to re-invest as any draw-back can be seen as proof of failure of the entire business model. Moreau notes that some start-ups fail because the traditional model lets them to operate outside of the economic climate leading to unrealistic ambitions. (Moreau 2006, 149).

The complex model has the same activities as traditional model, but they are managed simultaneously by the firm and are inter-related. Technological, marketing and financial activities are developed in parallel. The firms using complex model seek financing more rapidly than the firms following other models. Moreau uses analogy of: “the company develops, or will develop what it sells”. The dynamicity of complex model leads to differences between original concept and project results, but Moreau does not see this as a weakness. (Moreau 2006, 151-152)

Chaotic model is the fourth type Moreau identified. He compares it to mismanaged complex model and to simple model where everything is attempted at the same time without even defining what the project is. Moreau found that “chaotic” firms lack coordination, mission, vision and goals. The firms rely on self-financing although they seek external financing. However because such firms will not achieve high-performance, external financing is out of reach. (Moreau 2006, 153-154)

Moreau’s suggestions for start-up developmental models, although more suitable to represent start-up stages than generalist models, those that depict the growth of regular small companies, are not widely referred in the start-up ecosystem. Instead the authors of present research found two alternative models often cited in various start-up publications; Startup Commons’ startup development phases and “Marmer Stages” suggested in Startup Genome report (2012a). The latter is derived from Steve Blank’s customer development model and consists of six stages: 1) Discovery, 2) Validation, 3) Efficiency, 4) Scale, 5) Profit maximization and 6) Renewal (Startup Genome 2012a, 6). Marmer Stages are product and stage based and Startup Genome’s own research shows that the stages are consistent with traditional indicators of success. Additionally, Startup Genome found that a start-up doesn’t move through stages unless it meets certain milestones or conditions. (Startup Genome 2012a, 6)

Startup Commons’ model likewise consists of six phases: 1) Ideation, 2) Concepting, 3) Commitment, 4) Validation, 5) Scaling and 6) Establishment. The model also incorporates several sub-categories that clarify the different phases. The first two phases consist of

identifying problem and finding a solution (problem/solution fit). Next comes start-up's vision and finding founders fit, then finding product-market fit, which concurs with fourth phase, 'validation'. The scaling and establishment phases are comprised of finding working business model and market fit. (Startupcommons.org 2016)

The problem with Marmer Stages and Startup Commons' models is that they are not academically cited, suggesting that they perhaps haven't been properly tested. On the other hand, the fact that they are so often used in start-up publications would suggest that they are commonly accepted. Whichever model is used to depict start-up development, it can be argued that in order to assess the progression of a start-up, it is important to know where in its life-cycle it currently is (Startup Genome 2012a, 6). Nevertheless, Druilhe & Garnsey (2006, 172) point out that it is now widely accepted that innovation process is non-linear and that sequential models have lack of clarity in their phases. Start-ups often have to adapt to challenges when they occur. In addition, Moreau too, started his suggestion for start-up development models by writing that constructing a model for an uncertain universe of innovation is difficult (Moreau 2006, 145).

### **2.2.3 Start-up exit strategies**

Hisrich & al. (2010, 442) write that every entrepreneur should have an exit strategy well before one is needed. Exit strategy is defined simply as a planned way to get out of an investment or "cash out" (Investopedia 2016d). Exit may be caused by natural reasons such as retirement, illness or urge to do something else. Exit may also be motivated by need to secure resources or it can result from pressure of stakeholders, namely venture investors. (Barrow, Burke, Molian & Brown 2005, 254) Additionally, sometimes a bigger market player makes an acquisition offer that is too good to be refused. Chaston (2010, 218) uses Google's acquisition of Youtube in 2006 as an example. At the time of acquisition Youtube was merely 12 months old yet Google offered \$1.65 billion leading to the acquisition.

There are several exit options available for start-ups and the most common ones are introduced here for the reason that they occur relatively often in start-up ecosystem(s). The most common exit for a start-up is failure. Some estimations (Startup Genome 2012b, 4) give figure as high as 90%, while others such as Harvard Business School Professor Shikhar Gosh say that 30-40% of start-ups end up liquidating all assets. Gosh however points out that the rate depends on how one defines failure. (in Nobel 2011) Some exit strategies such as private sale, passing the business to family or selling it to employees are not common occurrence among start-ups, but a trade sale is one popular exit route (Barrow & al. 2005, 255-257).



In trade sale, also known as direct sale and in certain conditions corporate venturing, a company is sold to or acquired by (often) a larger company for strategic purposes. The larger company may use acquisition to diversify its portfolio, access skills and people or to take out competitor. For a start-up being acquired may provide access to resources or present a tempting way to realize value. Barrow & al. suggest that for a start-up it is worthwhile to actively approach potential candidates by using an adviser (Barrow & al. 2005, 255-256).

Hisrich & al. (2010, 445) point out that direct sale has multiple aspects that need to be considered. First of all, the business needs to be in sellable condition when it comes to costs, financial statements and projections. The larger companies are also more likely to be interested if the start-up has a clear niche and some competitive advantages. Secondly, the entrepreneur's (and founding team's) position after the acquisition needs to be discussed. Does he/she continue working, for how long and under what type of arrangement? The type of payment used in sale is also important. According to Hisrich & al. notes based on future profit expectations are often used. Thus, the seller does not have a guaranteed pay-out. (Hisrich & al. 2005, 445-446)

The determination of sale price or in other words, the valuation of the start-up, is its own subject. The overvaluation of start-ups has been criticized in recent times and it has been a cause for concern in certain locations (most notably in Silicon Valley). In general, publicly listed larger companies prefer to acquire unquoted companies due to perception that they offer better value than identical firms that are quoted. According to Barrow & al. this is because the shares of unquoted firm are valued at lower price/earnings ratio. (Barrow & al. 2005, 256)

The most demanding and resource intensive exit for a start-up is going public, which happens when the shares are made publicly available. For the case company *initial public offering* (IPO), the first public sale of stock, is not a timely issue. The costs alone amount for hundreds-of-thousands. Hisrich & al. give a figure of \$700,000 in the U.S. but note that the costs may be a lot higher too. (2010, 360-362) That figure does not even include the requirements such as market capitalization set by the stock-markets i.e. New York's NASDAQ. Those are measured in millions of dollars. (Barrow & al. 2005, 259)

Going public is nevertheless often seen as a way to obtain capital with most favourable terms (Hisrich & al. 2015, 361). It also makes borrowing easier, increases the liquidation

of investments and helps with the valuation of the start-up. The added ease of raising capital helps in increasing growth which is, as has previously been discussed, an objective start-ups have. In addition to costs, going public has other disadvantages; the time the process takes, the loss of control, increased liability, pressure, reporting and disclosure requirements etc. (Hisrich & al. 2010, 360-361)

Although case company's exit per se, is not seen as an objective of this research, it is one potential longer-term outcome of internationalization and something the case company should keep in mind already before the internationalization. Exit is not only one possible way to achieve growth otherwise beyond start-up's own resources and capabilities, but also a common occurrence. Start-up exits are used as an indicator of start-up ecosystem performance by various publications such as Compass Global Ecosystem ranking (2015). Various exit related issues will be further discussed in later chapters of this research.

#### **2.2.4 Start-up cash-flow and premature scaling**

Ian Chaston (2010, 58) writes that several academic studies have pointed out that the primary cause for a small business failure is running out of cash. He gives several explanations as to why it happens, the first simply being; no market demand or poor product-market fit. The second and third reasons Chaston gives are higher than expected costs and not recognizing the level of cash needed for the first sale. (Chaston 2010, 58)

The higher than expected cash needed for the first sale can be partly explained with technology life cycle adoption curve developed by Everett Rogers and popularized by Geoffrey Moore. According to that model, technology is adopted in five phases by the market; 1) technology enthusiasts or early adopters, 2) visionaries, 3) pragmatists, 4) conservatives and 5) sceptics. The first two groups form 'the early market' for new technology, whereas pragmatists and conservatives represent the mainstream market that follows. (Blank 2006, 11)

Before each market segment there is "chasm" that needs to be overcome by the start-up to win the customers. The early adopters are easier to persuade, and the biggest chasm lies between second and third groups. (Blank 2006, 11) Crossing chasm requires marketing, time and resources. Chaston has pointed out that many start-ups fail to understand how much cash is needed. Steve Blank on the other hand does not see technology life cycle curve as particularly useful for start-ups. He points out that while it is true that there are different types of customers, the curve can lead start-ups to false conclusions and portrays too positive model of growth. (Blank 2006, 12)

Chaston's remarks about small business failure are valid whether linked to technology life cycle curve or not. Blank (2006, 8) uses the term "death spiral" to describe a start-up running out of cash. He connects this to premature scaling, which simply put, means that the start-up has grown too fast. Fixed costs are higher than revenues and the start-up finds it difficult to sustain "accelerated cash burn rate". Premature scaling may occur if a start-up relies too much on predictions and hypotheses, forgets customers and the chasm between customer segments proves to be more than expected. For this research, and to the case company, it is important to keep costs in mind and understand the root causes of failure in order to not give inappropriate recommendations or conclusions that could lead to involuntary exit.

### **2.2.5 Entrepreneurial ecosystem**

Hirsich, Peters & Shepherd (2010, 40-41) write that entrepreneurs are influenced and helped by their role models and by moral – and professional support networks. While role models and moral support, in form of encouragement, can come from almost any source, professional-support comes from those who can give advice and counselling on entrepreneurial business activities. For a start-up access to professional-support networks such as mentors and business associates provides means to discover and exploit new opportunities and helps in acquiring valuable resources such as knowledge and funding. (Hisrich & al. 2010, 41-43)

It can be argued that for a start-up the most natural moral- and professional support network is an entrepreneurial ecosystem. According to Cohen (2006, 3) entrepreneurial ecosystems are a diverse set of inter-dependent actors located in a certain same geographic area. Van de Ven (1993) has suggested that entrepreneurial ecosystems are built on infrastructure that includes; 1) institutional arrangement that legitimize and regulate new technology, 2) public resource endowments such as scientific knowledge, financing and competent labor and 3) research & development and other value chain activities of those private entrepreneurial firms that want to commercialize their products.

Daniel Isenberg from Babson College's Entrepreneurial Ecosystem Project (BEEP) has studied the characteristics of strong entrepreneurial ecosystems. He has identified thirteen factors that can be found in healthy ecosystem; leadership, government, culture, success stories, human capital, financial capital, entrepreneurship organizations, education, infrastructure, economic clusters, networks, support services and early customers. (Isenberg 2010)

Isenberg’s categorization has been used by Suresh & Ramraj (2012, 98-99) as well as by World Economic Forum (2014) as an inspiration for conceptual framework of entrepreneurial ecosystem. The frameworks of both studies have eight categories with some minor differences. Figure 7 below shows WEF’s framework with a short description of what each “pillar” comprises.

Eight pillars of Entrepreneurial ecosystem	Accessible markets	Large companies as customers, SMEs as customers, governments as customers
	Human capital	Management talent, technical talent, entrepreneurial experience, outsourcing
	Funding & Finance	Friends/family, angel investors, private equity, venture capital, access to debt
	Support systems	Mentors, professional services, incubators/accelerators, network of entrepreneurial peers
	Government, regulatory framework	Ease of doing business, incentives, business friendliness, access to infrastructure & transportation
	Education, training	Availability of pre & post University workforce, entrepreneur specific training
	Universities	Promoting entrepreneurship, idea formation, graduates for companies
	Cultural support	Tolerance for failure, preference for self-employment, role models, research culture

Figure 7. Eight pillars and components of entrepreneurial ecosystem. (World Economic Forum 2014, 7)

Professor Erkkö Autio (2015a) has pointed out that entrepreneurial ecosystems are problematic from public policy point of view. He writes in somewhat critical tone that entrepreneurial ecosystems are ambiguously defined, mostly by consultants. According to him, public entrepreneurial policies have traditionally fallen into two categories: 1) market failure policies and 2) structural failure policies. He points out that those approaches do not address entrepreneurial ecosystems adequately. Autio writes that entrepreneurial ecosystems are dynamic and complex and that no one is in charge. Spotting failures from such ecosystem is difficult and for that reason public policies should be directed towards facilitating the ecosystem momentum and increasing the engagement between various stakeholders. (Autio 2015a)

Prahalad (2005, 64 - 66) on the other hand, has argued that academic research should not focus too much on only one form of private sector (e.g. start-up ecosystems), but rather look at market-based ecosystems. According to Prahalad market-based ecosystem is

a framework of different private and social actors creating wealth in a symbiotic relationship. Those actors complement each other and have their own roles and motivations for being part of the ecosystem. Prahalad writes that market-based ecosystems have the following components; extralegal NGO enterprises, micro enterprises, SMEs, co-operatives, large local and MNCs and NGOs. The relative importance of each component varies between countries and also changes over time. Prahalad argues that both from wealth creation and public policy point of views the focus should be on all, not just one component. (Prahalad 2005, 66)

### **2.2.1 Lean start-up**

In recent years a start-up management methodology called “lean start-up” has been gaining popularity in Universities and start-up ecosystems. Lean start-up approach was developed by Eric Ries, who on his part, was influenced by lean manufacturing theories, his own personal experience as a start-up founder and by Steve Blank an author, academician and investor (Ries 2014, 5). Lean start-up approach challenges many of the conventional business development models. The conventional wisdom has been that a start-up prepares a business plan with five year forecast for profits, cash-flow et cetera, and then proceeds to raise funding and develop a product.

Steve Blank writes in Harvard Business Review (2013) that conventional approach has often led to failures. He argues that it has been found out that; 1) business plans rarely survive first customer contact, 2) no one besides venture capitalists is actually interested in hearing five year predictions and 3) start-ups are unlike big companies, they are not executing business models, they are searching for one. (Blank 2013)

According to Blank lean methodology has three principles. First is to accept uncertainty and the fact that a start-up is based on hypotheses and assumptions. Blank suggests that instead of writing a business plan, a business model canvas should be used to begin with. Secondly, a lean start-up engages in customer development to test its hypotheses. Emphasis is on speed and learning from the feedback. Smaller changes to the product are called ‘iterations’ and bigger adjustments are ‘pivots’. Thirdly, lean start-ups follow *agile development*. Agile development is linked to customer development and is meant to reduce time and resource waste in product development. The start-up should create a minimum viable product, a product with only critical features, ask for customer feedback and then learn from that feedback to create a new minimum viable product. (Blank 2013)

Lean start-up methodology, although important to understand by anyone wanting to understand start-up environment in Silicon Valley, has not been spared from criticism. Ted

Ladd writes in Harvard Business Review (2016) that his empirical research of 250 start-ups does not support the idea; “the more validation, the better outcome”. Ladd found that too much feedback can actually be negative for start-ups and lead to confusion and loss of confidence. Furthermore, Jon Burgstone (2012) has criticized the origin of lean methodology by writing that “the Toyota way”, is not suitable for most start-ups. Burgstone also questioned the concept of minimum viable product by writing that although customer feedback is important, introducing products with minimal features is not smart. He pointed out that companies such as Apple learned from the mistakes of others when introducing new products such as iPod. Additionally, Michael Sharkey (2013) has criticized that concentrating on minimum viable product gives the impression that the start-up is only looking to be acquired, thus limiting its exit options and acting unfairly towards employees and stakeholders.

### **2.3 Internationalization theories**

Internationalization has been studied from many different perspectives over the years. One of the commonly referred internationalization theory is Uppsala model, a study of internationalization processes of selected Swedish firms conducted by Johanson and Wiedersheim-Paul in 1975 (Johnson & Turner 2003, 113). Although Uppsala model does not explain the timing of internationalization, it does argue that often internationalization is a gradual process in which distinct steps can be identified. The theory states that firms from smaller countries tend to start internationalization when they are still relatively small, anyway earlier than their counterparts in bigger economies. The model also argues that the reason for gradual internationalization can be attributed to lack of knowledge and resources. Also, the Uppsala model incorporates a concept of psychic distance to explain why firms regularly start internationalization by exporting to countries that are culturally similar to their home market. (Johnson & Turner 2003, 113-114)

Another earlier internationalization theory is ‘Eclectic paradigm’, also known as OLI paradigm, an economic theory developed by John H. Dunning in 1979. The eclectic theory is Dunning’s attempt to address why a firm may choose FDI over other modes of entry (Dunning 1980, 11-12). The eclectic paradigm consists of three factors; owner-specific advantages, location-specific advantages and internalization advantages. According to Dunning these external and internal factors determine whether a firm will use FDI or some other growth strategy. (in Griffin & Pustay 2014, 200) Dunning’s theory stresses that firms tend to internalize the ownership-specific advantages when the market is imperfect (Dunning 1980, 11). Alan M. Rugman however writes in his book “New theories of multinational enterprise” (2013, 13) that Dunning’s theory is in fact not so different from internalization theory; instead he has just used different approach to model multinational corporations.

Alan C. Shapiro writes in his book *Multinational Financial Management* (2010, 578-579) that the existence of multinational corporations (MNC) can be explained with factor and product market imperfections. According to Shapiro a firm will not invest overseas unless it can expect positive returns. In order to determine which projects are profitable, the firm needs to identify what are the market imperfections. Investopedia (2015) defines imperfect market simply as a market suffering from an inadequate information flow, a scenario where buyers and sellers don't match.

Shapiro uses theory of industrial organization to discuss imperfect product and factor markets. The theory presents an idea that trademarks, patents and other organizational competences are intangible capital for MNCs. If that intangible capital is easily convertible, a firm can use exporting in foreign market expansion. When the intangible capital is in form of knowledge that can be transferred as such, licensing is possible. However, the intangible capital is sometimes in a form that makes it difficult or impossible to separate from the firm itself. This is a type of market imperfection where internalizing the control may be the only viable strategy. (Shapiro 2010, 579-580)

The international business environment has evolved considerably since the development of the early internationalization theories. Different collaborative arrangements between firms are now commonplace, and clustering and agglomeration phenomenon have intensified. This transformation of market place has also shifted the focus of academic research towards network based theories of internationalization. (Johnson & Turner 2003, 112) Additionally, as a result of academic studies of SME internationalization conducted by Oviatt & McDougall (1994), McKinsey & Co., (1993) and Knight & Cavusgil (1996) among others, it has been noted that many firms engage in international business activities from inception. The older internationalization theories might not be able to provide an adequate explanation as to why that happens. (in Rasmussen & Madsen 2002, 3)

### **2.3.1 Born-global companies**

Contrary to Uppsala model's incremental internationalization, a newer approach has gained traction in academic research. Born-global companies are firms that expand internationally right after founding or latest within a couple of years from founding. (Daniels, Radebaugh & Sullivan 2015, 572) There is no exact definition of what makes a born-global company. Instead, many similar concepts such as; leapfrogging, international new ventures, high technology start-ups, high potential firms and international entrepreneurs have been used by academicians studying the subject (Rasmussen & Madsen 2002, 13). Some common features however set "born-global companies" apart from the traditional

small and medium sized enterprises. Their founder, or more typically a founding team, often has previous international experience and a strong international orientation. Born-global companies tend to treat their home country's market just as a one market among many others. (Daniels, Radebaugh & Sullivan 2015, 572)

Mika Gabrielsson (DSc.) writes that the ever increasing number of born global companies can be explained in many ways. Most often the reasons align directly with those of globalization. With the reduced barriers and technological advances international travel and communication have eased considerably. Also, many industries have gone through structural changes and competing in today's environment requires global mind-set. (Gabrielsson 2007, 204-205)

According to Gabrielsson it is common for born-global companies to pursue rapid international growth despite such strategy being at odds with the limited resources and organizational abilities possessed by born-globals. Consequently, many run into difficulties and end up failing. He suggests that to overcome those limitations born-global companies need to rely on external support and resources. Gabrielsson names business angels and advisory boards as two particularly helpful groups in advising and networking roles. Additionally, he underlines the importance of hiring new talent only when it brings complementary skills to the organization. (Gabrielsson 2007, 207)

It has been argued that born-global concept is too vague and loosely defined. Rasmussen & Madsen (2002, 5) use the analogy of "old wine in a new bottle" to question whether born-globals are truly separate from existing international firms. They also reflect that maybe the only difference is after all, the change in management's thinking as a result of the changing environment (2012, 5). Previous studies of Madsen & Servais (1997) and Knudsen & al. (2002) have also argued that born-global activities may be explained using existing theories (Rasmussen & Madsen 2002, 4). Thus, it could be argued that "born-global" is in fact a concept and not a theory of internationalization.

### **2.3.1 Network approach to internationalization**

Previously mentioned eclectic paradigm and market imperfections both have to do with the concept of internalization. Contrary to internalization, the term externalization is used when business is conducted through or with external partners. It has been suggested that SMEs' lack of resources and knowledge forces them to externalize internationalization activities. Even in externalization SMEs often have to rely on alternative methods and are highly dependent on co-operative environment. (Hollensen 2014, 85-86)



In 1988 Johanson and Mattson introduced a network approach of internationalization. The model argues that firms should be analyzed based on their position relative to other actors in the international environment, i.e. network (Hollensen 2014, 78). The network approach claims that internationalization happens by firm (1) establishing and developing positions relative to domestic networks that are new to the firm, this is called *international extension*. By (2) developing positions and increasing resources relative to those networks that the firm already has abroad, i.e. *penetration*. Also, (3) by increasing coordination between positions in various domestic networks, i.e. *international integration*. (Holm, Forsgren & Johanson 2015, 118)

What network approach suggests is that firms are connected to each other through relationships and various degrees of resource dependencies. Not by market price mechanisms. (Hollensen 2014, 86) The interactions in network relationships are both stable and changing and depend on each actor's willingness to engage with other actors in networks (Holm, Forsgren & Johanson 2015, 117; Hollensen 2014, 86). Thus, entry into an existing network requires that the actors already in the network are motivated to engage in interaction with the new actor (Hollensen 2014, 86).

According to Ojala (2009, 53) the network relationships can be formal, informal and intermediary in type. Formal relationships are between business partners, informal relationships refer to social contacts and intermediary relationships refer to third parties used in business transactions. Hollensen (2014, 87) writes that personal ties have the strongest influence early on in the relationships. Later on routines and other systems increase in importance. Research by Ellis (2000) and Ellis & Wong (2002) has confirmed that for entrepreneurs personal relationships are critical in foreign market entry and help them in finding partners (in Harris 2006, 114-115).

Figure 8 (below) attempts to depict how a focal firm could use network relationships in internationalization. The simplified figure shows how the focal firm is positioned within a network in its home country and how some of the same actors it has relationship with, also operate in country B, where the focal firm has set up a sales subsidiary. The figure does not show how the network has developed, but the idea is that it could have happened as introduced in network model. The figure is adopted from Hollensen's (2014, 87) more detailed figure modelling international networks.

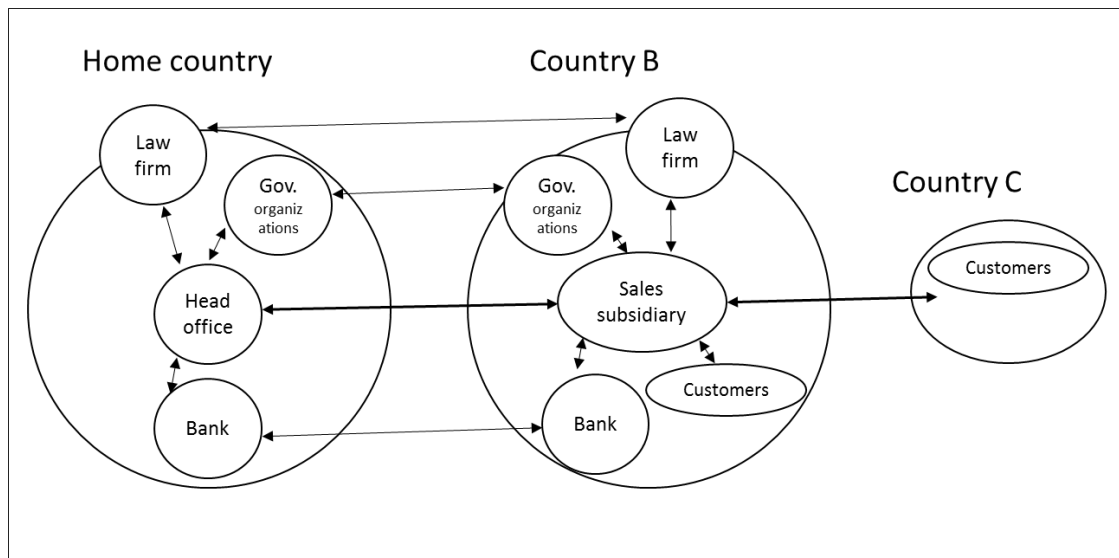


Figure 8. International network (adopted from Hollensen 2014, 87).

As stated by Ruzza (54-55, 2014) network structure is important, even crucial, for born-globals in mitigating lack of resources in internationalization. Nevertheless, it also has several limitations needed to be discussed. Ruzza refers to research of Coviello and Munro (1995) when stating that a notable disadvantage is that network structure leads to at least some loss of operative control in internationalization. He argues that the company should be careful in what activities it can rely on partners and points out that at least core activities should be internalized. Additionally, Ruzza points out that multinational corporations and born-globals enter into international networks for very different reasons and that the relationships are also based on different factors. As has been mentioned previously in this research, start-ups (including born-globals) rely on trust in relationship building whereas MNCs can better leverage their size in relationships. (Ruzza 2014, 55)

Furthermore, Ruzza believes that network structure is most useful in earlier stages of internationalization and accessing the new market(s) but later on it can hinder the growth. Ruzza sees the positive aspects of network approach, such as sharing the costs of market entry and increased access to market information and knowledge. Nevertheless, he points out that in a relationship with foreign partner the born-global also needs to overcome the cultural differences and difficulties of integration without forgetting the organizational demands and boundaries. (Ruzza 2014, 56-57)

### 2.3.2 Integrated theory perspective

Cavusgil and Knight have proposed that the different internationalizing theories are inadequate independently to describe born global companies' behavior, and that the different theories should be integrated to have a better understanding (in Falahat, Migin, Chuan &

Kong 2015, 614). Falahat & al. (2015, 614) use conceptual model (figure 9) to show the elements in rapid internationalization of born global companies.

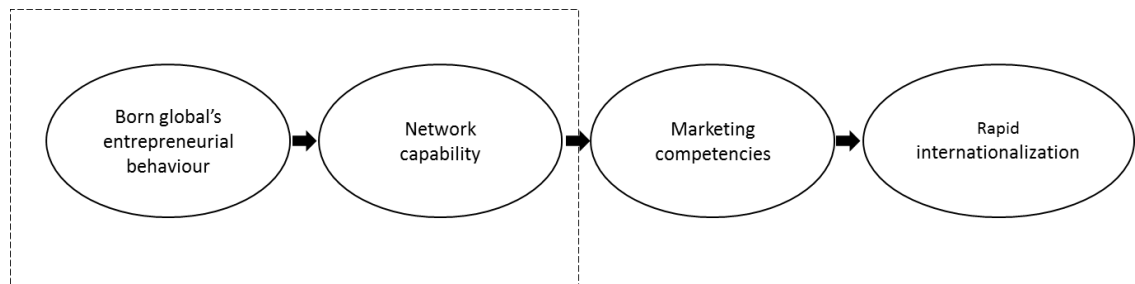


Figure 9. Conceptual model of born global firm's internationalization as suggested by Falahat, Migin, Chuan & Kong (2015, 614).

Falahat & al. (2015, 614) base their model into studies of other authors and propose that network and capability approaches should be seen as network capability because born-globals rely heavily on entrepreneurial orientation in developing both networks and capabilities. Additionally, Falahat & al (2015, 615) propose that because network capabilities allow born-globals to acquire knowledge and develop strategies, it is positively linked to rapid internationalization. Falahat & al. point that research of Awuah has proven that born-globals benefit from network relationships in making market based strategic decisions and hence marketing competencies and network capabilities are also linked (2015, 615). Finally, Falahat & al. cite the research of Johansen & Knight, Knight & Cavusgil, Kotabe, Duhan, Smith & Wilson and note that because marketing competencies are the most influential factors in firm's international performance, marketing competencies and rapid internationalization are also connected.

## 2.4 Market entry modes

Market entry modes refer to the means of operations that firms have available to conduct international business. Market entry modes can be divided into three categories and multiple sub-categories (Figure 10) based on needed level of engagement with the foreign market (Johnson & Turner 2003, 114).

The selection of mode of entry depends on many factors, some of which have been discussed previously; competitive forces, organizational abilities and resources (intangible capital), objectives and strategies of the organization, risk aversion, availability of partnership opportunities, characteristics of product etc. One of the biggest factors is the degree of control the firm wants to keep to itself. (Cavusgil, Knight & Riesenberger 2014, 389)

Each mode has advantages and disadvantages but sometimes it is easy to rule out some modes altogether. For example franchising and turn-key operations are unsuitable in many industries. Statistically, exporting and importing are the most commonly used modes in international business, and even more so in SME sector (Daniels, Radebaugh & Sullivan 2015, 565).

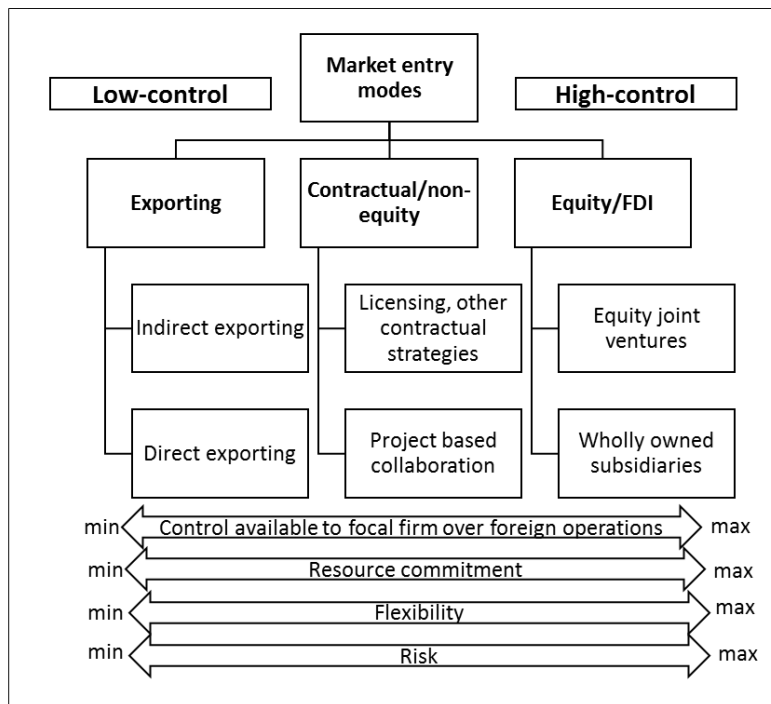


Figure 10. Selected market entry modes (Johnson & Turner 2003, 116) and levels of control, resource commitment, flexibility and risk (Cavusgil, Knight & Riesenberger 2014, 390).

### 2.4.1 Exporting

Exporting is a common entry mode used in internationalization. In exporting a focal firm produces goods or services in one country and then distributes them to other countries with the help of intermediaries and facilitators. On one hand the use of middlemen in exporting requires giving away most of the control in foreign market operations. On the other, exporting offers more flexibilities, requires fewer resources and has the least risk compared to other modes of entry. (Cavusgil, Knight & Riesenberger 2014, 393)

There are two different types of exporting, direct and indirect. In indirect exporting the exporting firm uses the services of intermediaries, such as export management firms, located in the firm's home country. The local intermediaries handle all the necessary work related to exporting (finding buyers, shipping, documentation etc.), on behalf of the exporting firm. (Cavusgil, Knight & Riesenberger 2014, 396-397) Indirect exporting is favored by

smaller companies and by those that are new to international trade. In some cases export management firms can, for a fee, also represent the focal firm in foreign market offering marketing and other support services (Hisrich, Peters & Shepherd 2010, 148). Although indirect exporting is favored by small and inexperienced firms, its downsides are that it does not enhance market development or increase organizational learning. Additionally, the intermediaries often have multiple clients they prioritize based on their own metrics. (Irwin 2012)

Direct exporting uses independent foreign distributors or focal firm's own foreign sales office. Direct exporting allows for more control and involvement than indirect exporting, but still relies on the foreign intermediary in the target market. (Hisrich & al. 2010, 148) Contrary to indirect exporting, the focal firm needs to interact with foreign buyers and marketplace, which can be an advantage as firm gets a chance to learn about the customers and market. However, direct exporting requires more resources and commitment and is thus more expensive. The most resource intensive option is to establish a sales office to a foreign location. Sales office is typically established only to the most important markets and in later stages of exporting. Sales office lets the focal firm to directly manage the downstream activities of value chain in the foreign market. (Cavusgil, Knight & Riesenberger 2014, 397)

#### **2.4.2 Contractual & non-equity**

Some entry strategies are based on contractual agreements between a focal firm wanting to internationalize and its foreign partner(s). Depending on the nature of relationship and the contractual agreement, the strategies can be categorized as; licensing, franchising, turnkey contracting, non-equity joint ventures and management contracts (Johnson & Turner 2003, 117-120). Keeping in mind the context of this research; franchising, management contracts and turnkey contracting are not applicable in the industry of commissioning company nor are they realistic options, considering the available resources, thus they are not introduced here.

Licensing is an arrangement where owner of an intellectual property or "licensor" lets another firm i.e. "licensee" to use that property in exchange for royalty, or some other form of payment. The parties have a formal contract, typically exclusive, for a certain number of years at a time. Licensing can be used as a passive entry strategy to foreign market and it requires no physical presence on foreign location, thus requiring less capital. The licensed intellectual property can be in a form of patent, know-how, design, trademark or copyright.

Often the licensor will also provide the licensee with supporting products or services. (Cavusgil & al. 2014, 446-449) Authors would like to point that considering the thesis commissioning company's objectives, at least initially, licensing is not a suitable entry strategy.

Non-equity joint venture and strategic alliances are arrangements where two focal firms enter into a contractual agreement, typically with an objective of entering into a new market or to share costs, risks and long-term profits (Hollensen 2014, 379-380). The collaboration between firms can be upstream based where firms collaborate for example in research & development and in production, or it can be downstream, in which case collaboration happens in marketing, distribution, sales and service. Additionally the collaboration can be a mixture of both up- and downstream. (Hollensen 2014, 380) These type of business arrangements require trust, close coordination and management. The parties have to agree on bargaining positions and profit sharing among other areas (Hollensen 2014, 387).

### **2.4.3 Equity based entry modes**

Equity based entry modes include foreign direct investment (introduced in key concepts), mergers/acquisitions and equity based joint ventures. Mergers & acquisitions are not discussed here because the case company is not financially fit to enter the target market by acquiring another company. However, the case company being acquired is one potential outcome of the internationalization and hence acquisition has been previously introduced and will be further discussed in later chapters.

Equity based joint ventures are similar to non-equity joint ventures and strategic alliances (2.4.2.), the major difference being that the two collaborative firms establish a jointly controlled third venture through which the collaboration happens (Hollensen 2014, 380). Foreign direct investment is the most resource intensive entry mode and has the most risk due to the permanent commitment to a new business environment and culture. However, FDI enables the focal firm to have more control over the market entry and provides certain flexibilities and benefits that other entry modes can't provide.

FDI can be vertical or horizontal in nature. Vertical integration is an arrangement where a firm wishes to own or control multiple stages of its value chain. It can be either forward vertical integration where firm invests in downstream parts of value chain (marketing, sales), or backward vertical integration, where upstream parts of value chain are strengthened with investment. Horizontal integration happens when a firm invests in activities that are in same stage of value chain as its own operations, for examples acquisitions to achieve economies of scale. (Cavusgil & al. 2014, 430)

To small and medium sized enterprises equity joint ventures and acquisitions are often not possible and FDI can simply be establishment of wholly owned subsidiary in foreign location to have greater control over exports. This type of FDI is an example of forward vertical integration, and is an example of **hierarchical entry mode**. Depending on the needs of the firm, hierarchical entry modes do not necessarily qualify as FDI per se but can be seen as a form of direct exporting. Sometimes a firm may use domestic-based sales representatives to travel abroad to perform sales or to increase commitment the firm may use foreign based sales representatives. (Hollensen 2014, 399) Formal sales office can be established either by setting up a foreign branch, which is a legal extension of the domestic firm, or by establishing a foreign subsidiary, which is its own legal entity and tax liable in the foreign location (Hollensen 2014, 401). The obvious advantage of hierarchical entry modes is that they allow for maximum control but on the other hand require higher resource commitment and access to market knowledge and information.

### **3 International financial management**

The general goal of all management, as it is with companies as well, is to maximize shareholder wealth. Hence, the same applies to financial management. (Brigham, E. & Ehrhardt, M. 2014, 9.) Financial managers' tasks are to make capital budgeting decisions, manage funding and decide upon which investments to take. (Titman, Keown & Martin 2011, 9). Therefore, it is easily understood that international financial management takes these decisions into the international perspective. It does however bring additional considerations in to the table, such as new kinds of risks as well as a vastly greater amount of opportunities than with domestic trade. (Pike, R. & Neale, B. 2009, 613)

The following chapters will discuss various methods of financial management, such as budgeting and funding. The chapters are limited into methods generally available to a startup, as well as ones applicable to this possible internationalization effort, a project-based approach into internationalization for a small, growing company.

#### **3.1 Managerial accounting**

In contrast to financial accounting, which deals with what has happened (the past), managerial accounting deals with the future and its planning. As the name suggests, it is not necessarily a group of tools for accountants (i.e. financial statements), but rather one of a business managers most useful sets of tools as they plan their operations throughout a period of time. (Braun & Tietz 2013, 4.).

There are some similarities between the two. One accounting method, cost accounting, is that which deals with calculating costs of various operations, and for example costs directly related in manufacturing a product. Here lies the similarity: to provide detailed managerial accounting information into the future, a manager must look at the past to find out what the costs have been. Cost accounting is not regulated, like financial accounting is, nor is it in all cases predictive as managerial accounting is. While cost accounting could be entirely separated from the two, it can also be said to act as a unifying accounting type. (Drury, C. 2007, 7). Other similarities between the accounting principles are clear, both deal with numerically measurable metrics about the company's operations. They are also both tools for management and shareholders to follow the company's financial situation.

A manager must be able to plan their operations well. Managerial accounting needs to be applied in order to take care of the financial planning, and it is one of the main purposes of managerial accounting. Secondly, a manager must control and communicate with their subordinates, and financial planning is an effective tool to use for this in business, where



the importance of an operation can be easily figured out through the sheer amount of financing directed towards it. During all these operations, a manager must also review where they are by comparison to previous plans and estimates, as well as competitors and other rivals. These form some of the main tasks of a manager, but also managerial accounting in general (Braun & Tietz 2013, 4).

### **3.1.1 Budgeting**

A very commonly used tool for managerial accounting, even in uses where the term managerial accounting is not what its user has in mind. Even individual people and families use budgeting to evaluate and plan their expenditures of the future. Naturally, every successful business has to keep a plan for the future as well, and this is where budgeting comes in. The three main benefits of budgeting are; Benchmarking, Communication and Planning. In this context, benchmarking describes using the ready-made budget as a comparison to the current situation, for example expenditure- or sales revenue-wise. It makes possible comparing the estimate with what has actually commenced through the operations of the business. (Braun & Tietz 2013, 518). There are two main schools of thought in budgeting. They are to form the budget as a rolling budget, or a static budget. The difference is to either once a year set a budget to follow for the next 12 months (static budget) and in rolling budgets the budget is updated more continuously, for example once a month. (Raye 2016).

The rolling budgets scope into the future is always the same, the whole 12 months (or other length of fiscal year). This is because it is updated periodically. It could be thus argued, that this type of budgeting is more current and fits in many modern business models, and more financially accurate as the fiscal year commences. It also distributes a lot of the work for along the year, instead of at the end of each year. Many companies however continue to use static budgets, which have to be extensively prepared once a year. The main benefit is the clarity of the plan the budget entails; it does not change during the year, but the companies objectives can be followed step by step, and everyone knows how the year should commence. (Raye 2016). As the economy becomes increasingly volatile however, fast changes are needed, and these static budgets may become outdated. The rolling budget therefore suits companies that need to be adaptable to the business environment.

The entire organization can be covered by a master budget, which consists of every other smaller-scale budget of the company. Usually the master budget is divided into an operating and financial budget. (Braun & Tietz 2013, 519). A budget is an extremely valuable

tool for a manager, as through it the entirety of the operations of the company can be financially communicated. Any employee can research their companies' budget and find out what the company emphasizes and even be of help when streamlining the operations further. (Braun & Tietz 2013, 518-520). This only works if there is financial transparency in the company, that is, the employees can freely examine financing activities.

However the main function of a budget is to plan the future of the companies' financial operations, or of any entities for that matter. It can be argued that planning the companies' operations financially are one of the most important in order to keep it liquid and to retain enough operating capital, as well as figure out when to seek for financing, a very important context in the startup world. (Braun & Tietz 2013, 518). It can also be argued that equally important is the goal setting and resulting communication purpose of budgeting; given the power of resource allocation in a company, budgeting activities serve the purpose very well. (Berzezniak 2016)

### **3.1.2 Project budgeting**

In addition to regular budgeting activities of a company, there might arise a need for specialized budgets. These might not be describing the regular financial occurrences of a company, but rather they might be of a project-based nature. Therefore project budgeting has emerged as a method of describing these financial activities.

Projects gain approval from the upper management of a company. This is done via a project estimate, stating the preliminary financial estimate for the project. A project manager runs the financial planning of a project, and is in charge of the execution of the estimate and budget, among other financial statements regarding the project (Kimmons 1990, 85). This is the prediction of the final cost of the project. (Kimmons 1990, 87). While this may be a traditional means of project budgeting, in startups this may become too laborious, or the hierarchy of the company does not permit such practices. In small companies, budgeting and project budgeting is still done by the CEO or other manager, while other team members contribute to the budgeting process.

Indeed, startups should carefully consider where to allocate their funding, in which projects, at what time and the like, so they can maximize their valuation for the next funding round and to bolster their traction, something extremely valuable to startup, as it gives them credibility in all their stakeholders' eyes. (Matheson 2015). Matheson (2016) supports the view that startups should prepare a budget in a rolling fashion, in addition to the claim that budgeting indeed is a valuable tool for planning and communication, especially when capital is such scarce as it is in a startup.

Projects may also be budgeted more statically, or in a rolling fashion. As described by Raye (2016), rolling budgets have the benefit of adaptability to changing conditions. As adaptability and agility are what startups need to succeed (among several other qualities), then controlling project budgets in a rolling fashion is not a farfetched option. In fact, startups should embrace rolling and iterative methods in all their business practices. It should be known at the beginning of a project, that there is always an uncertainty factor, for example if a startup chooses to pivot their operations, effectively changing the whole operation.

After the project and its estimated financial impact is approved, a project budget is made. It may differ from the estimate, or be similar. The change is a result of further research into the required activities of the project. The estimate is usually higher than the eventual budget. (Kimmons 1990, 101.) The budget cannot be higher than the estimate, as only the amount of funds equivalent to the estimate may be appropriated. In simple terms, a project estimate is a prediction of the cost made prior to the project, whereas a budget is a tool to control the cost throughout the project. (Kimmons 1990, 99).

Project budgeting can be seen as not only a tool for a manager but also for the project team. It is general knowledge that money is always the fuel of a company's operations, therefore by reviewing the budget a team member may see where great emphasis is taken, and act accordingly; also through this understanding they can understand the goals of the project more thoroughly. (Bradley, J. 2016).

While the estimate may be relatively inaccurate, and not contain all work packages or cost items, the budget must be as accurate as possible, and detail all work packages and categories of costs. This is needed in order to prevent costs from spiraling. (Kimmons 1990, 99).

### **3.2 Foreign exchange risk**

A startup company must always be careful and cautious in using their funding. A great deal of effort must be taken in order to minimize mistakes, which cost money. In startups, it can be stated that the opportunity cost is relatively higher than in more established companies, as there might not be any mechanism to protect the company from mistakes. It is however difficult to estimate future events, and therefore risks as well.

In the case under study, as Witrafi wishes to enter the US market for funding and sales, the foreign exchange risk is an applicable one. This risk, in essence, can be described as

volatility in foreign exchange rates. In essence, either your domestic currency appreciates or depreciates against the foreign currency, rendering it stronger (e.g. more Dollars with the same amount of Euro) or weaker (e.g. less Dollars with the same amount of Euro) (Titman & al. 2011, 650).

A payment method often encountered in foreign trades is to receive cash in advance as the exporter. This is one of the most basic management technique in foreign trade, as the trade is then made at the spot-rate, or the exchange rate of the day the sale is made. (U.S. Department of Commerce 2008). Such an action could also be applied by converting euros into US Dollars at a favorable exchange rate prior to the need of the currency.

### **3.3 Additional risks**

A major risk is political risk, in which there can arise sudden, unfavorable change in government policy. (Titman 2011 & al, 638). These policy changes may include expropriation of company assets (the taking of private property for use in public interest), tax rate changes or other politically motivated policy changes. (Titman & al. 2011, 638). As described by Culp (2012), despite companies feeling powerless against political risk (there is nothing they can do about it) they should seriously consider the ramifications. The easiest way to manage this risk is to trade in less risky areas of the world. There is thus a clear reason that this risk is included in PESTEL analysis. Political risks should be effectively identified, measured and managed in order to operate in any, but especially risk-prone environments; it may lead to unprecedented benefits (Culp, S. 2012) according to the risk-reward theory.

The demand risk is the risk of fluctuations in the demand for a companies' products and services. It affects the company incoming cash flow highly when operations are stable, however as startups usually have external funding as well, this can be used to hedge against the risk. (Titman & al. 2011, 650). Demand risk may expose deep vulnerabilities in an organization, because it affects such a large portion of any companies operations. The whole supply chain may be affected by demand changes that are difficult to foresee. (Cecere, L. 2014). The current political environment of the world (terrorism and economic troubles in various regions of the world), interestingly, is a major influencer of demand as well.

Commodity risk on the other hand affects the operational costs of a company. This risk can be described as sudden fluctuations in the price of a commodity essential to a company. Closely related is the operational risk, which is any other cost hike in an essential

part of a companies' operations, such as price of labour. (Titman & al. 2011, 650). Because commodities are often sourced from the poorest areas by the poorest members of society, a troublesome political climate may highly affect commodity prices, such as regulations on e.g. mining, or union activity resulting in more expensive labour. There may also be uprisings that escalate and spread into other industries as well. Therefore, sourcing must be executed with proper analysis and precision. (Alcorn, J. 2015).

### **3.4 Sources of funding**

Startup funding at any stage of its growth is a very peculiar issue. Funding is a discussion topic at the heart of any startups decision making, and is one of the most discussed overall. Any company at the beginning of their operations will question funding decisions. Funding, or the absence of it, is also one factor which makes or breaks a startup company. Gaining funding from an investor is very often also the first sale a startup makes, when they have sold their idea to the investor and they decide to fund the new venture.

Not many funding options are available to a startup. They usually do not have credit from debtors, and at the beginning there are no sales yet, or they do not sustain the company. Funding is usually first sought from the entrepreneurs themselves, as well as family members. This funding usually grows thin, as few founders have relatives with funds available to sustain a growing new business. Capital from outside the immediate founders must be searched for early on in a startups life. (Pike, R. & Neale, B. 2009, 771). It is indeed the fastest way to gain financing to finance a new venture, and also shows that the founders have support in addition to believing in the idea themselves (assuming they finance it as well).

### **3.5 Public Funding**

Finland, despite its petite size among nations, has a world-class public innovation funding environment. The Finnish government has recognized the need for funding innovation as means of keeping Finland's competitiveness high. While these public instruments are available to companies of all sizes, the majority of funding falls to young companies, so faster growth can be obtained despite meager turnovers. The Ministry of Economy and Employment is the top-level coordinator of these innovation funding activities, while the individual funding agencies have a relatively free hand in what companies and projects they fund. (Ahokas, M. 2012, 8-9) These agencies have a specific direction of development for Finland which they allocate funds to. This means that certain projects, when falling into the government's goals at the time, will more likely get funded. It could be argued that since a large portion of young companies funding come from public entities, they can

easily guide the efforts of these companies. Whether this drastically changes the direction of development, and whether it is a (too strong) form of guiding markets through the public hand, is a matter commonly discussed among entrepreneurs.

### 3.6 Equity financing

A long-term financing option, equity financing is a form of financing whereby ownership of the corporation changes in favor of the investor supplying this financing. They gain ownership of the company in return. For a small business, the most feasible options to search for equity financing is angel investors, venture capital firms, institutional investors and corporate investors (Berk, J. & DeMarzo, P. 2011, 771-774). Startups must pick their investors wisely, and vice versa. Because about 80 % of startups fail after three years of operations, the investor and startup must be a good match. A startup will need expert guidance, and someone with the relevant networks (which the startup rarely has in the beginning, unless the founders are very prolific). (Mehta, J. 2014).

There is a clear distinction in the startup world about funding rounds. They start from seed or pre-seed funding and continue into Series A, Series B and so on. The main difference between these rounds is their size in monetary terms. They are also raised consecutively, as can be seen from the following discussion. (Metrick, A. & Yasuda, A. 2011, 16).

**Angel investors** are usually wealthy private individuals, who likely invest in a startups first or second funding round. These rounds are called “seed” and “series A” rounds. Sometimes, a startup may have a pre-seed round, possibly from an idea contest win, or two seed rounds. The distinction between these rounds is related to the order the startup raises them and also the size of the rounds. (Pike, R. & Neale, B. 2009, 771). Angel investors usually come onboard in the pre-seed and seed phases, many times as the first major investor. (Hudson, M. 2015). These investments are made to validate the business for the first time.

These individuals may form syndicates to participate in a larger investment round, but they also decide on funding alone. They are an important part of a startups life for several reasons. They may be the first outside investor, they usually receive a large amount of equity in the company in reward for their high risk and they also usually bring a lot of expertise into the startup and will generally exercise that expertise through a board seat and an advisory role (Pike, R. & Neale, B. 2009, 771.). These investors are likely to have one or several industries they concentrate on, and make investments to companies in these industries. They will also usually take part in supporting the company, especially through their knowledge and network, in addition to the monetary support. (Hudson, M. 2015).

Next come **Venture Capital** firms, limited partnerships which take high risk for a possible high return, by financing and gaining equity of growing startup companies. They raise funds to invest in these startup companies, and their goal is to satisfy the investors of the fund. These investors are usually called limited partners, while the venture capital firm is operated by general partners, who make the investments into startups. The VC firm will want to take care of their investment, and they will join the board of the startup. They will also very likely take a sizable portion of equity of the company itself, and may become the largest individual shareholder in some cases. (Pike, R. & Neale, B. 2009, 772.) These firms typically invest from a series A round onwards, but some companies have specialized funds for earlier stage seed rounds as well. Investment sizes for venture capitalists start from 250 000 USD to 1 million USD (Investopedia 2016.).

One of the key issues a startup runs into during its course of operations and before its possible exit from startuphood, is gaining funding. This research has examined options to seek funding for the internationalization itself, but gaining more funding can be an end in itself while abroad. One reason as to why Witrafi is looking at the U.S. for funding is the sheer amount of venture capitalist money flowing to startups, which in 2014 was 49.3 BUSD over 4361 deals (National Venture Capitalist Association 2015, 31.).

Institutional investors are typically firms that handle large amounts of capital, for example pension funds and insurance companies. They have become increasingly interested in startups, in search for high returns. The case used to be that they financed VC funds and acted as limited partners, but they are beginning to invest directly as well, because in this way they gain higher returns, albeit their investments may be less diversified (Berk, J. & DeMarzo 2011, 773.). They typically invest anywhere from a series A onwards.

Corporate investors on the other hand are larger corporations that are willing to invest in a smaller private company, usually somehow connected to their industry. These are usually a form of strategic partner for a startup, leveraging the larger corporation's contacts and expertise worldwide. The investor itself is usually looking for something new to bolster their product portfolio, but they might also be looking for probing deeper into the startup to know if it is acquisition-worthy. An example of such collaboration is the 2009 funding round by Tesla, in which Daimler invested 50 million dollars to start a strategic alliance between the two automakers (Berk, J. & DeMarzo, P. 2011, 774.).

### **3.7 Cost-benefit analysis**

When a startup makes decisions, it is important to understand the repercussions of these decisions. A startup usually has an extremely short supply of resources, and especially funding may be scarce. Therefore, all financial decisions must be scrutinized through cost-benefit analysis, which is most often performed prior to a use of resources. It is one of the most basic types of business decision analysis. (Investopedia 2016g).

The natural first step is identifying the costs and benefits. Not only that, but their financial value must be figured out so that they are comparable on equal terms. (Berk, J. And DeMarzo, P. 2011, 53). However, some intangible items may be difficult to describe in monetary terms.

The valuation principle is a central concept in cost-benefit analysis. According to Berk and DeMarzo (2011, 53) this can be described as “the value of an asset to the firm or its investors is determined by its competitive market price. The benefits and costs of a decision should be evaluated using these market prices, and when the value of the benefits exceeds the value of its costs, the decision will increase the market value of the firm.”



## 4 Introduction of case company Witrafi Oy

Witrafi Oy was founded in 2013 (PRH 2013.) by partners seeking to reduce congestion and pollution through providing intelligent parking system. Original founders were current CEO Sampsa Siitonen, CINO Tuukka Korhonen, Business Angel Mikael Seppälä and Chairman Stefan Storgård. The first three founders got to know each other through Haaga-Helia University of Applied Sciences, where they attended the same business courses. Mr. Storgård on the other hand, was introduced through the search for an investor and advisor for the founders. Progress started through market- and other feasibility studies, after which development efforts were initiated. Witrafi is currently located in Helsinki, Finland. They also have an address in Ylihärmä, located in Ostrobothnia. (PRH 2013.)

The company provides a parking service where emphasis is on finding available parking, handling the customers' permits and offering 'pay-once' services. Witrafi's intelligent parking management system caters to large employers, parking operators and end users. It can be used anywhere where there is a need to be able to park as swiftly as possible. The system streamlines parking access control, and for example barriers can open automatically when approached, provided the vehicle approaching has access to that area.

Currently Witrafi has 10 employees, each with a different, complementary skillset. The team members have broad experience from: business & entrepreneurship, traffic & parking systems, embedded systems, software design and web-development. The board and advisors consist of seasoned entrepreneurs and industry experts who possess decades of experience. Witrafi is a very diverse company when considering the employee base, ages range from early 20's to middle 40's. Internationally speaking, current employees represent four continents and five countries. For a young startup, this is exceptionally diverse.

The current market for Witrafi's products is limited in Finland. Therefore they are actively looking for internationalization options. Previously Witrafi has commissioned studies relating to favorable internationalization locations to France, Germany, Singapore and Helsinki. They are still searching for the best place to start the internationalization process, and the emphasis is on doing it in the most efficient manner possible. Witrafi has been to several international trade fairs and expos throughout its operations: ITS World Congress 2013, Intertraffic Amsterdam 2014, ITS European Congress 2014, Web Summit 2014, Smart City Expo and Congress 2014, Svepark 2015, Slush 2015 and next, in April 2016 they will visit Intertraffic Amsterdam 2016.

They are interested in the United States because it is the prime automotive country in the world, and the U.S. has a lot of wealthy investors. Additional financing is essential for the growth of the company. There are also other potential benefits the location can offer and the company would like us to research further. The U.S. is not a completely new country to Witrafi, the company was nominated to be a top 10 Finalist in the 'Verizon Powerful Answers Award 2014' held in San Francisco.

Witrafi has been able to attract various types of funding throughout its life. First fundings were from the shareholders themselves and Haaga-Helia UAS through its Startup School, where Witrafi hails from. These minor fundings amounted to about 15 000 €. Startup School is Haaga-Helia's program that supports students wanting to become entrepreneurs (Startup School 2016), and Witrafi has received a lot of help from them throughout their continued success. Because of Witrafi's close cooperation with Startup School and success in entrepreneurship, Sampsa Siitonen, the CEO of Witrafi, was awarded Startup School Student of the Year 2015.

Witrafi has attracted a total of 150 000 € in outside investments, 250 000 € in Tekes funding, 100 000 € from Helsinki City Innovation Fund, 50 000 € from Finnvera. Last year Witrafi gained its first revenues, some tens of thousands of Euros (books for 2015 have not been closed yet). From Finnvera, Witrafi has also received two small bridge-funding loans for purposes of burning Tekes-funding at a faster pace and maintaining a healthy cash flow. Out of these fundings, Witrafi has fulfilled the acceptable amount of de minimis-type funding (200 000 € during 3 years).

Witrafi's path and its current situation compared to other startups could be described using Startupcommons' tool for describing startup development phases, seen below:

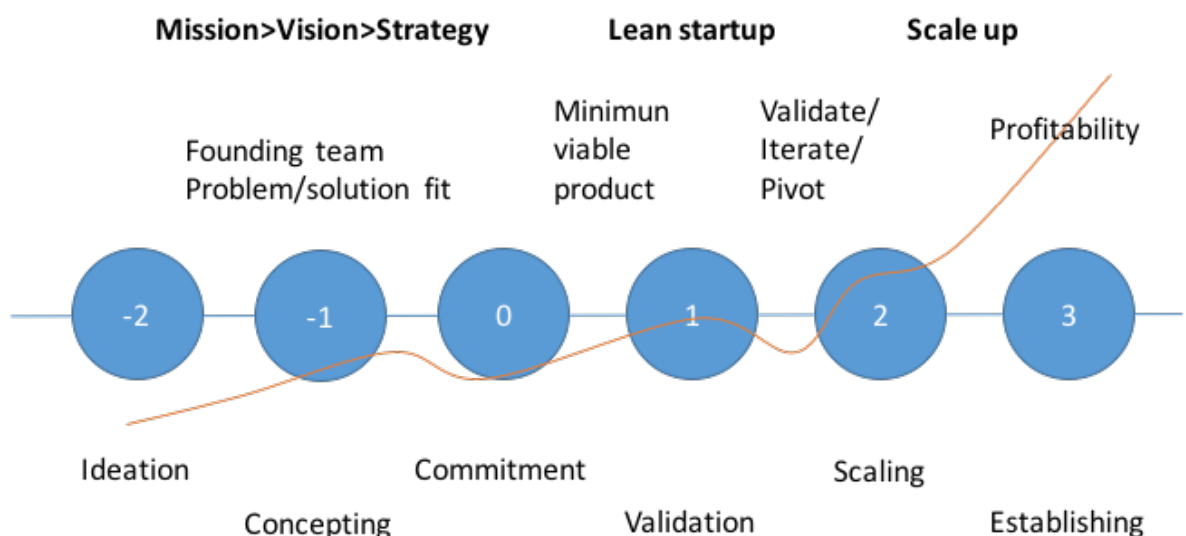


Figure 11. Startup development phases (adopted from startupcommons.org 2016).

In reference to the phases outlined in the figure, Witrafi is currently located in point two. This is the scaling stage, loosely described as a stage of pursuing high growth, obtaining funding and building a larger team (Startupcommons.org 2016). They have already surpassed great obstacles like team building and gaining funding, while also having a grip on their first customers. Point two is an excellent stage to start internationalization, when even more financial resources and growth is pursued.

## **5 Research methods**

This chapter introduces the selected research methods and gives justification for research approach and design. The chapter also introduces the investigative questions of this research, as well as describes how the data was collected and analyzed. Furthermore, the reliability and validity of this research are evaluated.

### **5.1 Research approach**

This thesis is a research-oriented single unit case study and uses a qualitative research approach. Case study involves the unit of analysis, herein the commissioning company Witrafi Oy, and a real world context or phenomena. For the reader it is important to understand that case study sets its own requirements and limitations on the available research methods and design. It is often difficult to construct a theoretical framework for a case study because the situation is unique and theoretical perspective in the beginning could limit the authors' ability to make discoveries (Yin 2012, 9). Also, because case is often a study of unique situation the results may not be easily replicated or generalized. On the other hand, case study allows for a wider range of issues to be discussed. (Yin 2012, 3-6) Both the case context and commissioning company of this research have been previously introduced in chapters one and four.

Qualitative exploratory research approach was chosen because it is suitable when the objective of research is to describe and gain a deeper understanding of issues rather than draw conclusions from a larger sample or to give definite answers (Haaga-Helia 2014; Hollensen 2014, 182; Research-Methodology 2016a). This fits well with the research purpose of exploring the different options and allows for holistic approach to be used, but on the other hand, also limits the usefulness of this study in decision making as such.

The research approach is also inductive, because no hypotheses were presented in the beginning of the research project. The authors focus on researching the underlying issues of the case before constructing any theories or conclusions. Inductive research aims to build patterns and relationships between the issues under study and provides a more flexible structure for the research. (Research-Methodology 2016b)

The selected research approach should be visible for the reader in the research design. The lack of hypotheses and exploratory approach guide the discussion, and those opportunities that authors identify, are introduced to the reader in a detailed way without forgetting the case company.

## 5.2 Research design

The research is designed so that it adequately addresses the needs of the commissioning company and provides needed insights to justify authors' approach. The research starts with an introduction and moves on from a general level to more specific issues. Authors have approached the research in a holistic way, in other words the authors see that the characteristics of start-ups and their operational environment, together with case-company's resources, are likely to affect the partnering opportunities Witrafi has in internationalization. Thus, research progresses in stages and only once the various theoretical and environmental factors have been introduced, the focus moves on the collaborative options.

The research is divided into five investigative questions used by the authors to answer to the research question, introduced in introduction chapter. Likewise research structure has previously been introduced. Table 3 below lists the investigative questions together with the purpose of each question. Data collection and analysis methods are discussed separately in the following sub-chapters.

Table 3. Research design.

<b>Investigative question</b>	<b>Purpose</b>	<b>Data collection</b>	<b>Data analysis</b>
<b>1. What is the competitive landscape in the Bay area like?</b>	To examine and understand the pre-conditions set by environment for the Bay Area market entry	Secondary research, Klyszeiko & Suomela interviews	Qualitative, PESTEL, case-oriented
<b>2. Who are the partners for internationalization?</b>	To describe where the most likely partnering opportunities for Witrafi come from and why	Secondary research, to the lesser extent interviews	Qualitative, some quantitative, case-oriented
<b>3. What kind of collaboration arrangement they can offer?</b>	To investigate what can the previously identified actors potentially offer for Witrafi before and after the market entry process	Secondary research, Siitonen, Suomela & Klyszeiko interviews	Qualitative, some quantitative, case-oriented

<b>4. What are the costs attached to the best collaboration options?</b>	To identify costs of market entry in using scenarios constructed as a result of prior research	Secondary re- search	Qualitative, scenarios
<b>5. What recommendations can be made about market entry to the U.S. to Witrafi?</b>	To present the re- search findings and suggest what are the sensible options available		

### 5.3 Data collection

Data collection for this research consisted of expert interviews and extensive secondary research of secondary sources. In some parts the authors also relied on personal experience and observation. One of the authors visited Silicon Valley in the beginning of this research project, but due to the research having just started the visit could not be used to its full potential.

The data collection was challenged by the fact that the research is a case study about start-up internationalization, both being ambiguous concepts, especially so when interconnected. Furthermore, literature available on start-up internationalization is limited and often written from the point-of-view of Americans. However, finding information and data was not the biggest issue, especially from the Internet, but judgment calls had to be made about the credibility, applicability and trustworthiness of the collected data.

The authors decided to limit the number of interviews because it was determined that the case sets its own limitations on the usefulness of data collected from other entrepreneurs. Authors are aware that an in-depth interview of someone who has experienced start-up internationalization first-handed could have provided valuable information. However, accessing and locating trustworthy people to be interviewed was challenged by the fact that the target market's location is on another continent and that case company's industry sector is different from that of many other Finnish start-ups that have previously internationalized. Several interviewees also declined from being interviewed or didn't respond to inquiries. One candidate pointed out that he was open to coming to the authors' school and

give a presentation/seminar about an issue related to this study, but otherwise he was busy.

#### **5.4 Primary data**

Primary data was collected from phone/Skype interviews of Suomela and Klyszeiko, one email interview (Kriman) and face-to-face interviews with Siitonen. Kriman's email interview was conducted in the early stages of the project and guided the research, but was not heavily referenced in-text. Siitonen (also an author of this research) was interviewed thoroughly before the start of this research and also prior to the empirical part to demarcate the case and make use of Siitonen's personal experiences of managing the case company.

Authors wanted to interview someone who could give insights about start-up internationalization and the target market. Finpro's senior consultant Suomela agreed to be interviewed. Amcham's Klyszeiko on the other hand, was interviewed because he was known by both of the authors as a knowledgeable person, and could present an American perspective to many of the same topics covered in Suomela's interview. To avoid interviewees' confusion about the motivation of interviews the case company was kept anonymous. This was fine with both of interviewees. Both interviews were semi-structured and once the interviewees had answered to the questions prepared beforehand, the interviewer took an active listener's role to cover a wider range of topics. Shortened interview transcripts can be found from appendices.

##### **5.4.1 Hartti Suomela, Senior Consultant, Finpro Oy, Palo Alto**

Mr. Hartti Suomela who works as a senior consultant in Finpro's Silicon Valley office was interviewed in 26<sup>th</sup> of January 2016. The authors first approached Suomela by email and then arranged for a proper mobile-phone conversation. Mr. Suomela has over 15 years of work experience in Silicon Valley area and in his current position he meets with approximately 150 clients a year. According to him, his role in Finpro is reactive in nature, meaning that whenever a Finnish company approaches him he gives them advice and counsels them forward.

The authors interviewed Mr. Suomela to gain a better understanding of Silicon Valley environment and the role of Team Finland services in internationalization. Additional interest for authors was Mr. Suomela's personal experience working with Finnish start-ups in Silicon Valley and his opinions about different entry methods. The authors had prepared

some questions in advance and after those were addressed, a wider range of topics were covered in unstructured manner. The interview lasted for approximately 50 minutes.

#### **5.4.2 Mike Klyszeiko, Founder & Director of LaunchpadUSA, Amcham Finland**

Mr. Mike Klyszeiko was interviewed in 27<sup>th</sup> of January 2016 using Skype's video-conference feature. The authors decided to interview Klyszeiko because both knew about Amcham but had a limited understanding of what are Amcham's core activities. Over the course of the interview it became clear that Mr. Klyszeiko is an expert not only on the U.S. business environment but also on the Finnish exporting SME sector. Thus, in addition to the questions prepared in advance, many more were discussed in unstructured manner.

In the interview Klyszeiko was able to give insight on the various different services Amcham has to offer and additionally he discussed the Finnish-American business relations. He also gave some examples how Finnish SMEs have entered the U.S. market previously and introduced many more aspects of internationalization. The interview lasted for approximately 45 minutes.

#### **5.4.3 Sampsa Siitonen, CEO of Witrafi Oy**

Mr. Siitonen is a co-author of this research and also works as a CEO of the commissioning company. He was interviewed on several occasions in order to understand what are the needs of Witrafi from this research and also to understand what is Witrafi's current developmental stage and resources. Mr. Siitonen is also featured in chapter four.

#### **5.4.4 Alex Kriman**

Mr. Kriman is a US national who studied business in Finland up to the Ph.D level, only to discover that his employment opportunities were thin here. He later moved to California, and worked in South America as a high level-marketing chief for Kawasaki. Afterwards, he moved into working in startups in Silicon Valley. Through his studies in Finland and business experience in the Americas, he holds a unique perspective into doing business in the US, being also able to look at the situation with the eyes of a Finnish corporation. Mr. Kriman was interviewed because he had first-hand knowledge of the startup scene in Silicon Valley, in addition to his past in Finland.

### **5.5 Secondary data**

Secondary data refers to data that is existing and collected by someone else. It is easier to obtain but has limitations such as lack of fit to the research framework and difficulty to



evaluate reliability. (Hollensen 2014, 177) In this study the authors use secondary research in many parts, meaning that data that was produced or collected by others is analyzed and referenced. Secondary data analysis is commonly used method in international studies (Harvard University, 13). The secondary data for this research comes mostly from secondary sources, but some primary sources such as government documents and researched journals are also used. In some cases the difference between primary and secondary source is negligible and it is difficult to determine the type of source.

The authors have tried to use only high-quality secondary data sources such as; course books, journals, research reports and business publications, but as was previously mentioned, the case sets limitations on how useful or accurate some sources are. A report that is otherwise of high-quality and focuses on U.S. market entry may not be accurate for this research if it concerns a firm that operates in different industry (than the case company) and has financial resources unavailable for the case company.

In many parts authors use secondary sources found from the internet because Finnish libraries lack entrepreneurial literature. Authors acknowledge that it is problematic that much of the published research and data referred to comes from within the start-up ecosystem, making it difficult to analyze the validity of the data as an outsider. Secondary data sources such as; CrunchBase, TechCrunch, Startup Genome, Angel.co, FireMatter and CB Insights may not tell much to someone who is not familiar with the start-up activities, but they are nevertheless widely used by entrepreneurs around the world.

## **5.6 Analysis methods**

This research uses mostly qualitative data analysis methods, but also incorporates quantitative methods where applicable. Qualitative analysis methods are used where the data is non-statistical and quantitative in those parts where the collected data is numerical, collected secondary data. The authors approach each investigative question individually, for example in first investigative question PESTEL tool is used in analysis whereas in the fourth investigative question authors use different scenarios to analyze the costs of possible future outcomes. Illustrations such as lists, figures and tables are used selectively to visualize the information. Regardless the method used, in each investigative question authors approach the analysis from the perspective of case company which has complicated the analysis in many parts.

The interviews and, to limited extent personal observations and experiences, have been used as a guiding principle of the analysis. The interview results play a major role in un-

derstanding the environment of the target market and selecting the prospective collaboration opportunities but secondary research is in many parts used to verify the results. In the interviews of Klyszeiko and Suomela many of the questions asked were same, so that authors could compare how the two experts see same issues and whether there is any contradictions.

### **5.7 Research validity and reliability**

Start-ups operate almost in a bubble like environment as suggested in theoretical framework. Academic research on entrepreneurship has focused on explaining what makes an entrepreneur and what are the conditions for a successful venture. This has been criticized by Van de Ven (in Cohen 2006, 3) and others. It is problematic for the validity of this research that so few studies have focused on high-tech start-up internationalization. There exists studies about born-global companies, but many of those too, focus on explaining the features of a born-global company, not per se, on how they internationalize. The ambiguity of start-up concept has posed challenges for the researchers.

The chosen research approach proved to be more difficult than the authors anticipated and the research design has been revisited multiple times. Especially finding a fitting theoretical perspective was a challenge for the authors. Yin (2012, 10) points out that inexperienced case study researchers often have this difficulty. The fact that this research is a case study means that the results should not be generalized and may be difficult to replicate (Harvard University, 11). The authors nevertheless believe that in addition to the case company, many of the findings may be of interest to other entrepreneurs.

When it comes to validity and reliability of case studies, researchers' bias is a big concern (Harvard University, 10). Authors would like to point out that one of the authors of this research is also working for the case company and therefore it is likely that some biased views existed to begin with. On the other hand, authors see that a person who has first-hand knowledge about many of the issues also increases the validity of the research. The biases affect just as well the other author of this research, but come from other sources, e.g. he had limited understanding of entrepreneurial activities before the start of this research and had previously worked for a trade promotion organization.

In this research the authors have attempted to increase the reliability and validity of research by choosing appropriate methods and carefully selecting the interviewees. A lot of attention is given to the case context and correct referencing so that the reader can evaluate the use of source materials. Some parts of this research do suffer from the lack of other opinions, but in those instances authors have paid extra attention on the evaluation

of relevance and accuracy of the used data. In many parts authors have tried to describe why some issues were introduced in the first place, and perhaps why some issues were left out of this research.

For the reader it is necessary to understand that the chosen data collection and analysis methods set limitations on the usefulness of this research in decision making. The purpose of this research is not to be an internationalization guide, but rather to explore different options in a highly uncertain and constrained conditions.

## **6 Research outcomes**

This chapter will illustrate the findings of this research in the context of the investigative questions. The theories outlined in chapters two and three will converge with the researched content and gathered material, of which various types of qualitative and quantitative data have been gathered. The data will be presented and followed by immediate analysis for its suitability to the case company. The aspects of the investigative questions are researched, analyzed and answered successively. The operating environment of Silicon Valley will be examined in addition to relevant funding and partnership options to Witrafi; as well as what the anticipated benefits might be of this internationalization move.

### **6.1 What is the competitive landscape in San Francisco Bay Area?**

This research is geographically demarcated to include Silicon Valley and the broader San Francisco Bay Area in the state of California in the United States of America. In theoretical framework authors briefly introduced how operating environment affects firm's strategy and it was proposed that in international expansion the effects of operating environment are increased. In this section, the selected business environment aspects of the United States are introduced by applying E-S-P paradigm items, then some challenges faced by foreign start-ups in the U.S. market entry are discussed and an analysis of Silicon Valley ecosystem is presented using PESTEL approach. Finally, the section concludes with an estimation of Witrafi's competitive market position.

The purpose is to introduce the U.S. business environment and to investigate what are the pre-conditions the U.S. business environment sets for Witrafi in potential market entry. The focus is on general level due to the fact that later on Witrafi will be receiving an independent market research on industry specific conditions from a third party source (interview with Sampsa Siitonen). Although investors and customers are likely to compare Witrafi to existing solutions, authors propose that at least initially, while Witrafi is still in start-up stage, competitors consist mostly of other start-ups with whom Witrafi is competing for investors and other stakeholders' attention.

#### **6.1.1 United States as a location for foreign business**

##### **Environment**

The United States of America has a population of 321 million people and by geographical size it is the world's third biggest country. The gross domestic product (nominal) of the U.S. is \$17.97 trillion which makes it the biggest single economy in the world. The U.S.

economy is composed of 77.6% in services, 20.8% in industry and 1.6% in agriculture. The industry sectors are diverse, but the country is world leader in high-technology innovations and among the leaders in following industries: petroleum, steel, motor vehicles, aerospace, telecommunications, chemicals and consumer goods. (CIA World Factbook)

The abundance of factor endowments and large size of domestic market mean that trade-to-GDP ratio of the U.S. is comparably low 30% (2013), when compared to smaller countries such as Finland 79% (2013) (World Bank). However the U.S. is still the world's third biggest exporter and biggest destination for imports. Main export partners are Canada, Mexico, China and Japan and main import countries China, Canada, Mexico, Japan and Germany. (CIA World Factbook)

### System

The United States is a federal republic consisting of fifty states. Each state has a level of self-governmental autonomy and the federal government has authority only on issues specifically declared to it by the U.S. Constitution (Laitinen 2007, 16-19). States have their own governmental structures, in most cases identical to the structure of the federal government (figure 12), with the exception of governor replacing the president in state governmental structure. Administrative power of states is further delegated to counties, municipalities and cities.

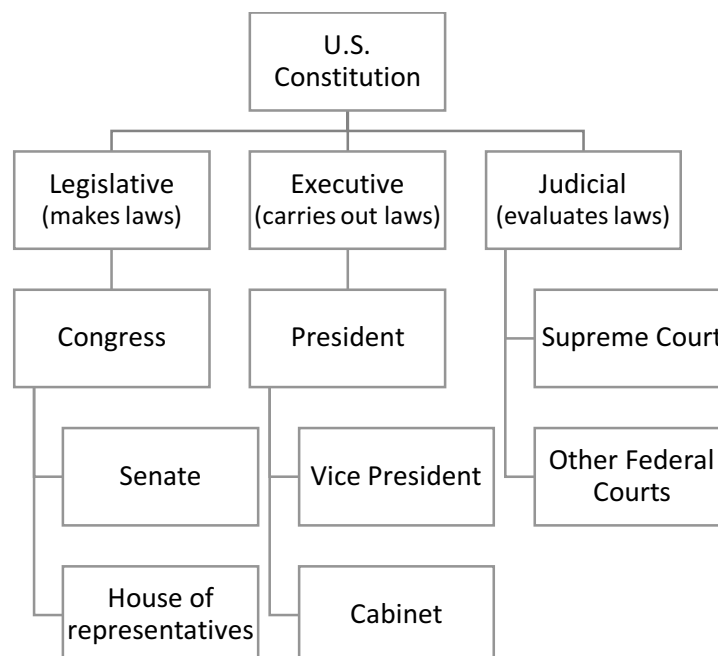


Figure 12. The branches of U.S. federal government (USA.gov).

The year 2016 is an election year in the U.S. and the country is currently in campaign season. On the federal level there is concurrently Presidential and Congressional elections. As of before the elections Republicans control both the House and Senate, but it is predicted that Democrats will have a chance of winning over Senate in the upcoming elections. (Ballotpedia.org 2016b) From foreign businesses' stand point, the Presidential elections are more influential for the reason that in the United States the president has considerable executive and veto powers, including in foreign policy. According to PewResearch (2014) the ideological gap between Republicans and Democrats has widened in recent years, and more Americans now see themselves either as conservative or liberal.

### **Policies**

The United States of America is considered to be a highly stable country (Fragile State Index 2015) and it is ranked 7<sup>th</sup> easiest country in the world to conduct business in (World Bank 2016). The country is the world's largest recipient of foreign direct investment and although the trend has been downward for the past few years, the government is committed in welcoming FDI as demonstrated by SelectUSA policy. The government is also actively trying to bring back or "insource" some of the jobs and investments that have been outsourced in past decades, this is clearly visible in government programmes such as "Make it in America". (WTO 2015, 10)

The United States has surpassed the recession which started in 2008 from sub-prime mortgage crisis and later spread globally. The GDP growth was estimated to be 2.6% in 2015 (CIA World Factbook). According to WTO (2015, 10) employment levels, personal disposable income, and household incomes are all growing and the government policies are supportive. The Federal Reserve, which is the central banking system and in charge of monetary policy, has in recent years kept interest rates unusually low, but has now started to raise the key interest rates as it is confident in the U.S. economy (WSJ, 2015). The longer term target for inflation is 2% (FED 2016) and it was estimated to be 0.2% in 2015 (CIA World Factbook).

Trade policy wise the U.S. is a big supporter of free trade and abolishment of trade barriers. In addition to the recently signed Trans-Pacific Partnership free trade agreement the U.S. is also currently negotiating with European Union about Trans-Atlantic Trade & Investment Partnership (TTIP), which would be a similar and extensive free trade agreement and would potentially be beneficial for Witrifi and other Finnish companies wanting to do business in the U.S. (USTR)

### **Conclusion**

The U.S. economy is once again growing and solid compared to Witrafi's home market. In the U.S. market entry Witrafi has to understand that the country has two levels of government; federal and state level and that in many ways, they overlap and even contradict. The approaching elections cast certain uncertainties when it comes to business, but on the other hand the trade negotiations (TTIP) between EU and the U.S. can lead to new opportunities for small businesses in both continents.

### 6.1.2 Main challenges faced by foreign start-ups in the U.S. market entry

FireMatter View Report (2015) surveyed over 200 foreign start-ups concerning U.S. market entry. One of the questions asked was: "What are the main challenges in U.S. market entry?" The results are compressed in figure 13 below.

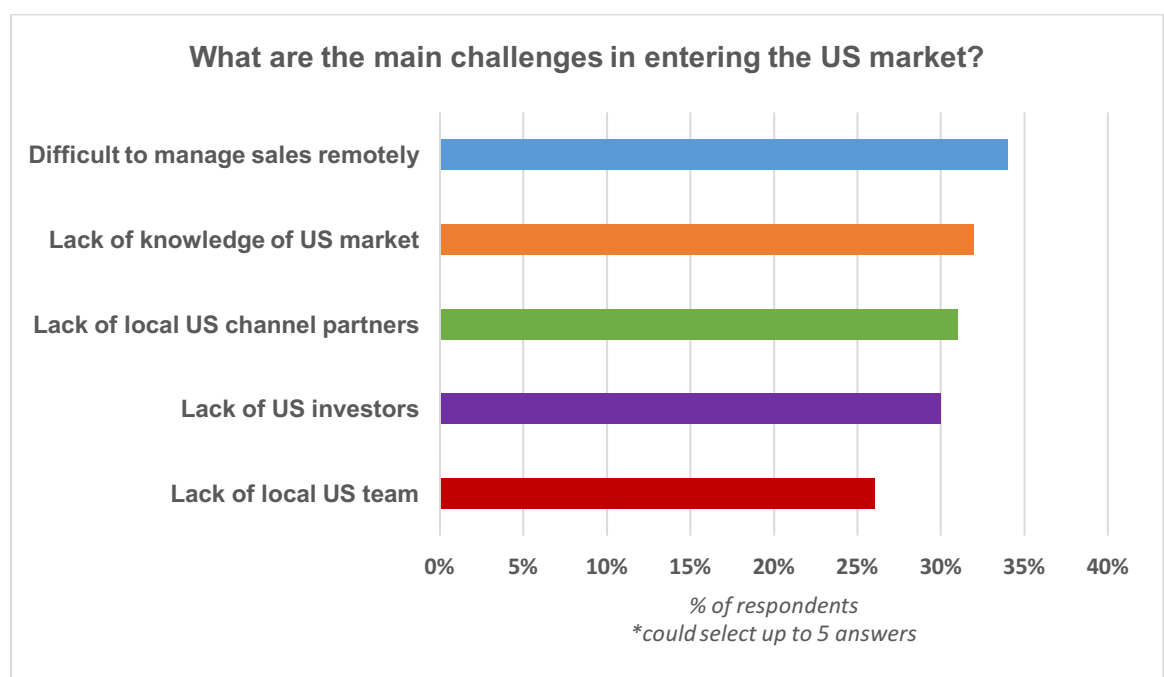


Figure 13. Top challenges foreign start-ups face in U.S. market entry (FireMatter Views Survey Report 2015, 14).

The results are not surprising and are in fact consistent with the impressions authors gathered from the expert interviews. Notwithstanding the fact that the interviews conducted for this research focused strictly on Silicon Valley. The results are also consistent with the points made in the theoretical part of this thesis. First, start-ups face the paradox of high ambitions and lack of resources. Secondly as integrated theory of internationalization of Falahat & al. pointed out, market knowledge is an integral part in success of internationalization and closely linked to network capability. The respondents of FireMatter survey clearly lack both in market knowledge (over 30%) and in network capability as suggested by the challenge of finding local partners.

### 6.1.3 Silicon Valley ecosystem

The Bay Area is a commonly used name for the Northern California region that includes nine counties and the metropolitan areas of San Francisco, Oakland and San Jose. Geographically the Bay area represents 1.22% of the total area of California and population is 9.9% of California total. The area is perhaps best known for Silicon Valley, the world leading cluster of innovative high tech companies such as Google, Apple and Facebook. Silicon Valley consists of the counties of Santa Clara, San Mateo and of selected cities in Alameda and Santa Cruz counties. The area is home to approximately 3 million people and supports some 1.5 million jobs. (Silicon Valley index 2016)

The birth of Silicon Valley, around the mid-20<sup>th</sup> century, is closely linked to Stanford University, located in Santa Clara. The University together with some other governmental research institutions provided start-ups with seed early on (Nishizawa, in Taplin 2007, 104) and the founders of many innovative technology companies such as HP, Google and Yahoo are Stanford alumni (Stanford University). Based on the early success of Silicon Valley the U.S. government changed many of its policies, for example it opened publicly funded research results to use of private industries and eased the regulation on Initial Public Offering (IPO) and listing. Silicon Valley was also the location where VC investment emerged as an early on funding option for start-up companies. (Nishizawa, in Taplin 2007, 104-105)

Over the years Silicon Valley has evolved into world leading technology cluster and it is also considered to be a benchmark for other start-up ecosystems. Kenji Kushida (2015) sees Silicon Valley as a dual ecosystem, that is, the ecosystem consists of both large firms and start-ups. The concept of start-up ecosystem was introduced in theoretical framework but as a reminder, it consists of support infrastructure, which depending on model used, includes 6 – 13 supporting factors. Daniel Isenberg's (2015) circular model for example names; markets, policy, finance, culture, supports and human capital as the main elements and each element consists of one to three supporting factors. The importance ecosystems have on overall economy and for start-up growth is well documented. However as Prahalad (2015) suggested, start-ups form only one part of the wider market-based ecosystem, for that and some practical reasons the demarcation also includes the wider California Bay Area.

To compare start-up ecosystems Compass (2015) conducted 200 interviews and surveyed over 11,000 start-ups. Resulting was a comprehensive ranking of global start-up



ecosystems, excluding China, Japan and South-Korea. The ranking uses weighted average of five components as a basis for evaluation. The report found that Silicon Valle & Bay area is still in its own league. Figure 14 is a radar chart showing just how complete Silicon Valley ecosystem is in nearly all areas compared to second best New York and the best ranked European ecosystem London, which was ranked 6<sup>th</sup> globally. The only component where both London and New York scored better was market reach, but that can be explained with the factors used in evaluation. Silicon Valley’s metropolitan area GDP (\$535 billion) is significantly smaller than that of New York and London, and additionally London can provide better foreign market reach due to its location. (Compass 2015)

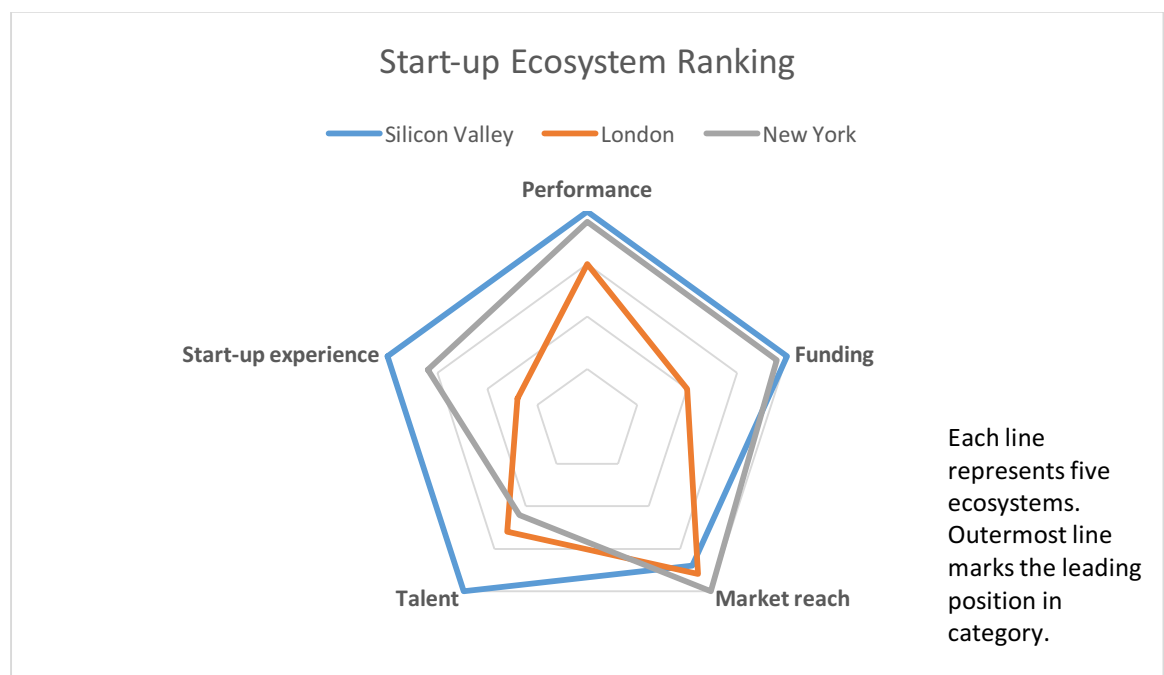


Figure 14. Radar chart comparing ecosystem rankings of Silicon Valley, New York and London. Based on Compass Top 20 start-up ecosystem ranking in Global start-up ecosystem report 2015.

The figure should not be used for numerical comparison as it is purely based on position in ranking. For example in Compass’s report the performance component is based on valuation of ecosystem (number of exits and funding) and number of start-ups. The radar chart would indicate that London and New York are close to Silicon Valley (SV) when in fact the Valley is in league of its own. According to Compass SV has 14-19 thousand start-ups and ecosystem is valued at \$264-323 billion. For New York the figures are much lower 7,1-9,6 thousand and \$40,8 – 49,8 billion and for London 3,2 – 5,4 thousand and \$39,5 – 48,3 billion. (Compass 2015) The actual number of start-ups in Silicon Valley can be even higher as Angel.co lists 22,600 companies and some estimates (Coppola 2014) give figure as high as 28 – 30,000.

The high number of start-ups in Silicon Valley can be seen either as a positive or negative factor for Witrafi. On one hand, clustering means that support infrastructure is best in the world and easily accessible. Informal and formal networks are also best in the world. On the other hand, it means that Witrafi will be competing for attention, and merely sending a business plan to venture capitalists and other potential partners by email won't work. In fact, both Finpro's Hartela and Amcham's Klyszeiko said in interviews that establishing a local presence is its absolute necessity.

Aside from ranking, a major force shaping Silicon Valley ecosystem is demographics. The Silicon Valley has extraordinarily high number of foreign residents, according to Silicon Valley index (2016, 9) 37.4% when compared to national average of 13.3%. Compass report (2015) notes that 45% of start-up employees in Silicon Valley are foreign nationals. Estimating the number of Finnish start-ups operating there is difficult, and Finpro does not have an exact number (interview, Suomela). Pekka Pärnänen, a well-known Finnish consultant in Silicon Valley, estimates that there are around 50 Finnish start-ups in Silicon Valley (Kauppalehti 2015). For Witrafi other Finnish start-ups and actors in the area would be natural network partners, both formally and informally. The number of Finnish companies however fluctuates, exits and failures are regular. According to Tekes report (2010, 24-25) written by Rapo & Seulamo-Vargas, Silicon Valley has been a fruitful location for Finnish growth companies when it comes to exits, at least a dozen companies found buyers between 1999 and 2009.

### **Political aspects**

According to report by Bay Area Council and Booz & Company (2012, 14) the success of Bay Area can be attributed to the strength of infrastructure, finance and culture. Surprisingly supportive government policies were not seen as a factor despite Isenberg's ecosystem model names it as one important factor. Compasses "Global Startup Ecosystem Report" (2015, 36) names cost of living, cost and availability of workspace and immigration as the biggest policy issues affecting Silicon Valley area in 2015. Of those, immigration is a federal issue and the rest are largely affected by market forces. It can be said that the current political climate is supportive of innovative high-tech companies. From Witrafi's industry, although not directly related, California was one of the first states to allow road testing of self-driving cars and Uber taxi services.

California currently has a Democratic state government trifecta, meaning that the Democrats have majority in House and Senate as well as the governorship (Ballotpedia.org 2016a). Environmental issues, traffic and rising income gap are all current and recognized

issues in Silicon Valley (Silicon Valley index 2016, 9). The current California governor Jerry Brown is determined to cut petroleum use in half in the state by 2030 in attempt to slow climate change. According to Los Angeles Times (2016) Brown plans to do this by allocating state's funds to public transportation projects and by promoting electric cars and other sustainable transportation means. For Witrafi this sends mixed messages as on one hand, parking business relies on cars yet on the other, electric cars need to park as well. Also, a big portion of the wanted petroleum reductions can be achieved with modern fuels and more efficient technologies.

### **Economic aspects**

The Bay Area and Silicon Valley are economically influenced by what is happening on a country level, for example currency fluctuations although important economic aspects are affected by what is happening on a federal level. Also, to avoid unnecessary overlaps with previously mentioned issues, only selected economic aspects are discussed here.

Overall San Francisco Bay area economy is growing and doing well. This is proven by indicators such as job growth. Recently 150 U.S. metro areas were compared and San Jose performed second best and San Francisco was eight in surpassing expectations (Forbes 2016). In fact, Silicon Valley's unemployment rate of 3.6% in November 2015 was far lower than the country's average of 4.8%. The income measures have also risen at faster phase than inflation. The Bay Areas combined VC investments rose from previous years \$19.8 billion to \$24.5 billion in 2015 (Silicon Valley index 2016, 8).

However, the economic aspects are not all positive. Recently there has been speculation that a bubble may be forming in Silicon Valley start-up pre-IPO valuations. This is based on so called "unicorn" valuation trend, which refers to those start-ups that are over-valued and underperform when listed. Although high valuations concern start-ups in later stages than Witrafi, a bubble bursting could be catastrophic, as many venture capital funds would suffer. Some have already compared the current situation to so called Dot-Com bubble of early internet era. (CNBC 2016)

Additionally, for start-ups Silicon Valley is not only a mecca of resources, but also a highly competitive environment to do business in. This shows in high cost of doing business, and high cost of housing and other services as mentioned before. The average annual earnings of Silicon Valley are \$122,172 as per Silicon Valley index. According to Compass (2015) the average time to hire software engineer in SV was 40 days, lower than in other ecosystem. Indicator of how dynamic the labor market in Silicon Valley is.

## **Socio-cultural aspects**

Differences in national culture can play an important role in internationalization as suggested by Uppsala model and psychic distance. The differences between Finland and the U.S. culture are clear, for example the spoken language is different. The extent of how much the cultural differences could impact Witrafi is difficult to estimate. Witrafi has a diverse and multi-cultural team and English is the working language, so at least language would not be an issue. However the U.S. is more individualistic and masculine culture whereas in Finnish culture there is less power distance and more uncertainty avoidance. (The Hofstede Centre)

One Swedish entrepreneur also wrote in TechCrunch article (Feb. 2016) that he noticed certain differences between Swedish and the U.S. business cultures, for example Sweden is much higher trust society. The authors also learned in Amcham Klyszeiko's interview that there are important differences in business culture. He advised that Finnish companies have a dependable reputation, but the U.S. companies often "talk big", and it is sometimes difficult to tell what is true. Klyszeiko also said that there is no real danger of liability of foreignness, but he still thought that in the U.S. it is important to "look local, sound local". Additional points he made were that it is important to have local presences, because short-term face-to-face meetings are expected, and the U.S. culture values being "available" more than Finnish culture where for example longer holidays are the norm.

As was previously mentioned, culture has a big role in Bay area's success. In Silicon Valley "giving back" to community is a big part of the culture and the ecosystem has so different culture that there is even a name to it: "Silicon Valley mind-set". (Rapo & Seulamo-Vargas 2010, 43) The ecosystem is driven by ambition, urgency, timeliness and constant creation (Rapo & Seulamo-Vargas 2010, 43-45).

*"In Silicon Valley, it is not what you know; it is whom you know and what value you can bring to the table that makes the difference."* (Rapo & Seulamo-Vargas 2010, 45)

Daniel Isenberg's ecosystem model (2015) recognized success stories and tolerance of failure as two factors shaping culture of ecosystem. Silicon Valley has plenty of both. Success stories are everywhere; Apple, Google, Facebook, Tesla Motors, AirBnB, dropbox and Uber to name a few. Tolerance of failure is perhaps best explained by Shikhar Ghosh, a senior lecturer of Harvard Business School who has studied start-up failures. According to him some 30-40 % of start-ups end up liquidating all assets, 70-80% of start-ups fail in

returning the investment and 90-95 % fall short of projections. Despite the high failure rates, in Silicon Valley a failure is often viewed as “a badge of honor”. (in Nobel 2011)

### **Technological aspects**

Silicon Valley is the birth place of many inventions and a site of major public and private research centers. As has been mentioned, Stanford University is located in the SV and a source of some of the brightest minds. The resources of the area also a natural “pull factor” for those interested in high-technology and highly skilled workforce is abundant. This can be seen for example in number of patent filings, patents filed in SV represent 47.7% of all patents filed in California (Silicon Valley index 2016).

One of Silicon Valley’s characteristics is that it adapts new technologies much faster than other locations. This is of course possible because of supportive culture such as openness to innovation and impatience but also because methods utilized by Silicon Valley companies such as “lean start-up” philosophy. Also, Silicon Valley companies have adopted cloud based systems and other technologies faster than competitors elsewhere, making the speed of change even faster. (Accenture) The research and development expenditure in Silicon Valley is extremely high, which is natural because start-ups rarely have ready made products in tech and IT industries.

Silicon Valley is known for corporate venturing which refers to established corporations’ ability and attitude to create new innovations. In Silicon Valley practically all established corporations such as Google, Yahoo, Cisco, Apple, HP etc. have Corporate Venturing divisions. Corporate venturing can be both internal and external. Internal means that a company attempts to create new business activities inside the organization but outside core activities, often by creating a separate division such as Google X. External corporate venturing describes existing corporations’ investments on early startups with promising new technologies and innovations. For start-ups external corporate venturing is a potential source of funding but also one way to achieve exit. (Barrow, Burke, Molian & Brown 2005, 222)

### **Environmental aspects**

As was discussed in “political aspects”, environmental issues are taken seriously on political level in California. In recent years California has suffered from drought which has affected water usage in stage, but that is a lesser concern in Witrafi’s industry. Silicon Valley and California in general can be described as more environmental conscious state and for example investments on renewable energy sources, especially solar power, are sizeable.

Electric vehicles are increasingly common in the region. Silicon Valley cities have encouraged citizens to change into more environmentally friendly vehicles by investing in charging outlets, and there are now over 1000 public outlets. (Silicon Valley index 2016)

On longer term Silicon Valley and California are likely to be among first adopters if self-driving cars ever gain popularity. This would of course reduce parking needs in cities and be negative for Witrafi, but such developments are still years away. In fact the current situation in the Bay area, like other metropolitan areas in California, is that the region is suffering from inadequate public transportation and traffic congestions. This can prove to be lucrative opportunity for Witrafi, if the product can be marketed as a solution. According to a report by National Transportation Research Group (2014) average person in San Francisco-Oakland area lost 61 hours and \$1,266 due to congestion and in wasted time and fuel. The same report estimates that vehicle travel in California will increase by 20% by 2030.

### **Legal aspects**

Legal aspects are likely to have a major role in Witrafi's U.S. market entry. Sari Laitinen (2007, 39) the author of "Doing business in the USA" writes that although many assumptions about U.S. legal system are myths, there are some differences compared to the Finnish system. It is advisable for Witrafi to get acquainted with the U.S. legal system before considering of signing any agreements or selling to the U.S. market. Due to demarcation limitation of this research, only chosen few legal aspects of U.S. market entry can be discussed here.

One of the first and biggest barriers of entry is a federally regulated legal issue. Compass report (2015) named the immigration and visa issues as one of the main hindrances in Silicon Valley market entry. Finnish citizens can enter into the U.S. under Visa waiver –program for up to 90 days if the purpose is to meet or consult with business partners, travel for a convention or conference or negotiate a contract (State Department). However that sets strict limitations on business for example length of stay and is not a sustainable solution on long term. Mr. Suomela and Mr. Klyszeiko both told the authors in interview that there are visa options that are easy to acquire for longer business visits such as B1 visa which costs \$160, but even that option has limitations and must be extended after 6 months as it does not allow permanent residency. Rapo & Seulamo-Vargas (2010, 96) write that E-1 category "treaty trader" visas are popular among Finnish businesses, but that SMEs have faced difficulties in obtaining one. Basically "Green card" would be the best option as it is most flexible option, but the cost and difficulty of acquiring one is likely too much for a start-up.

The immigration issue entrepreneurs face has been federally recognized and there has been some unsuccessful initiatives in the U.S. congress to develop a new visa category known as “start-up visa”, but currently the initiative is frozen. The investor visas categories (H) are out of question for a start-ups as they require investment up to \$500,000 – 1 million. The Visa question should not be taken lightly as Jeff Busgang, an investors, points out in Bloomberg article (Feb. 2016) “VCs don’t want to invest on entrepreneurs who are at risk of being sent away”.

Another major legal aspect in U.S. market entry is the establishment of subsidiary. Authors learned from expert interviews that establishment of U.S. based subsidiary is a requirement at some point in time, of course depending on what Witrafi wants to achieve in the U.S. For example longer term local presence and acquiring funding from VCs generally require that the start-up is/has subsidiary that is a U.S. C-corporation (which corresponds to Finnish osakeyhtiö), also S Corp and LLC are possible (SBA 2015 & Mashable 2012). According to Laitinen (2007, 91-94) incorporation is a state regulated issue, and foreign companies often favor incorporating in Delaware as it is known for being advantageous location. Incorporation is not difficult, it can even be done via internet, but it does complicate operations and add costs. Klyszeiko (interview) stressed that incorporation should not be done too early on and the use of legal help is recommended.

Some other legal aspects Witrafi should be aware of in the beginning are that in the U.S. non-disclosure agreements are not as common as in Finland (Rapo & Seulamo-Vargas 2010, 46) and that legal contracts in the U.S. are generally far more comprehensive, also misunderstandings can happen because of the differences in legal systems (Rapo & Seulamo-Vargas 2010, 87).

#### **6.1.4 Witrafi’s competitive market position**

Witrafi is not the only player in the parking management market. There are longer-standing players and new entrants, other startups, all fighting for the piece of the parking management pie. Making parking sensors, there is Streetline and Fybr, for example. Making apps, there are Passport parking, Parking Panda and Pango, among others. Smarking and others offer parking data analytics too. Witrafi operates under the same mantle of Smart Parking Systems, so differentiating themselves from the others is difficult.

On the other hand, Witrafi’s customers, parking operators, are a slowly evolving breed of customers. In the USA in particular, a lot of the local parking operators utilize obsolete technology in their parking locations. This includes using people for collecting payments

instead of ticket machines, and when machines are present, they are usually rather simple ones. As described in interviews made by the researchers, parking is viewed as an almost “Mafia” business in the US. As Silicon Valley is the one place that can be described as the home of innovation, it is likely that many business models and ideas have already been tried and tested there. Smart parking ideas are no different. It is likely that all of Witrafi’s potential customers (parking operators) in Silicon Valley have already been bombarded by partnership proposals and sales of many different systems. A clear differentiator is needed.

Witrafi’s competitive advantage arises from their high potential in scaling to different applications (other than parking), in addition to their chosen strategy of pursuing operators and their cases giving hundreds or thousands of end users instantaneously: contract parking, such as residential or paid employee parking. The other use cases in question come from utilizing the required network for other applications, such as smart metering and lighting controls. Witrafi believes it has cracked a fundamental problem in deploying Internet of Things applications: an application meaningful enough to get a customer to deploy one, which can later be used for other applications as well. Through working with RFID, Witrafi has obtained a particular set of skills, skills obtained through beating an incredible learning curve, when no other company was working on the same technology to the point they would be on par with Witrafi. In short, Witrafi has multiple directions it can move to through IoT applications, and also conquering more of the parking market. Witrafi’s end user acquiring model, gaining them through operators, is also a major change in an otherwise heavy B2C parking market.

In essence, Witrafi can be said to bring a new product to an old market, however, per their approach to sales and end user acquisition, it could be said they are also entering the market as a niche entrant: trying to only pursue specific kinds of customer cases. Witrafi is also consistently unbeatable in many respects: for example, to use their service, no smartphone is needed (leading to the possibility of adoption by any customer group) and a peculiar feature in the technology they use: indoor positioning, in addition to outdoor positioning. Parking has also rarely seen recurring card payments for these contract customers. The benchmark is still sending paper invoices.

One of the greatest points of conducting this research is to figure out Witrafi’s competitive market position in the Silicon Valley, therefore this topic will be revisited multiple times during this research. Witrafi is also able to utilize material supplied by FinPro and Tekes Future Watch, as they frequently conduct research into various market areas.



## **6.2 Who are the partners (for Witrafi) in internationalization?**

The following will outline the various possible partners for Witrafi's internationalization. There are several public and private entities discovered. They are related to consultancy or funding, mainly concerning themselves with such operations for trade, development (business and technology) and other types of support. Witrafi will need funding to pursue internationalization, and as they do not possess all the required knowledge, various types of partners will be needed to enter the US market. The partners are both domestic and international, and the researched partners or partnership options will be analyzed in conjunction with the gathered data itself.

### **6.2.1 Preconditions for collaborative opportunities**

Cavusgil, Knight and Riesenberger (2014, 90) name four types of participants in international business; focal firms, distribution channel intermediaries, facilitators and governments. A focal firm is a firm that initiates the international business transaction, the one with a product or service intended to be offered in a foreign market. Distribution channel intermediaries are firms that offer specialist services for focal firms, often in the fields of logistics and marketing. Facilitators on the other hand are firms or individuals who assist focal firms in internationalization process by making international transactions happen more efficiently. Finally, governments make and enforce regulations, handle multilateral trade relations and maintain fiscal and monetary policies. However they can also own and operate state owned enterprises and be significant buyers in certain industries. (Cavusgil & al. 2014, 90)

Each group consists of countless number of actors and because discussing all potential partnering opportunities would be difficult, eliminating the less likely ones and concentrating on selected few opportunities is used. In discussing what partnering opportunities there are for Witrafi in internationalization, it is important to remember Witrafi's basis for the process. Witrafi sees itself as a born-global start-up and its motivation for internationalization differs from the traditional SME internationalization (Uppsala model) where incremental growth or even 'chance' is often the main motivation. Witrafi per se, sees internationalization as a way to sustain itself. However, because Witrafi is still a start-up with an unproven business model searching for distribution channel intermediaries would be premature. Foreign intermediaries expect exporters to provide them with a good, reliable product with a proven market (Cavusgil, S. & al. 2014, 405).

Witrafi is constrained by limited financial resources. Authors have previously mentioned that a decision to demarcate closer analysis of Witrafi's financial resources out of this research was made. It was clear that there is currently little income being generated from sales, and such analysis would thus be inaccurate at best (Siitonen interview). It is however worth noting that firm's financial abilities also influence partnering opportunities. The authors also want to emphasize that premature scaling, introduced in theoretical framework, is a real factor and is to be taken seriously. Some partnering opportunities and entry strategies available for larger companies are not feasible for Witrafi. On the other hand, although internationalization can be a costly exercise, for an ambitious start-up ignoring Silicon Valley based funding and growth opportunities is a lost opportunity in itself.

Theoretical framework suggests that ideal entry mode for SME with limited resources is exporting, due to other modes of entry requiring more resources and commitment and having a higher risk associated in them. That said, as was concluded in discussing the previous investigative question, the environment of chosen target market requires local-presence. This would suggest an intermediate, hierarchical entry mode, which although costlier, would give Witrafi more control over internationalization.

The theoretical framework also introduced various internationalization theories. Although it has been stated that Witrafi sees itself as a born-global, understanding internationalization from wider perspective is important. The older theories present related concepts and form the context of newer theories. Additionally, as integrated theory suggests, any one theory alone might not be adequate to explain born-global internationalization. Points made about internalization and imperfect market conditions are related to integrated theory's point about network capability. Market imperfections and failures are also closely linked to the government policies, trade facilitation and promotion. Born-global companies need to acquire knowledge about the target market before internationalization, and due to market being imperfect, they rely heavily on existing relationships and networks.

Networking theory of internationalization suggests that there are three type of relationships; informal, formal and intermediary. Informal relationships have been found to be important in born-global internationalization, but due to the nature of such relationships, they are difficult to address in this research. The theory also suggests that a firm can only join and benefit from a network if the existing actors have a reason to collaborate with the new firm. This is an important point, and a reason why in-depth analysis of certain partnering opportunities is difficult in this research. It is clear for the authors what Witrafi's value proposition is, but it should not be forgotten that most business relationships have to be mutually beneficial.

To understand what are the prospective partnering and collaborative opportunities for a start-up in internationalization authors rely on expert interviews, findings of theoretical framework and the data gathered from secondary sources. The interviewees were asked what their respective organizations could provide for a Finnish start-up in internationalization and also what kind of partnering opportunities they see there exists for start-up to utilize. Based on the aforementioned, it was determined that the likeliest partnering candidates are: 1) the different organizations in start-up ecosystem and 2) trade promotion organizations.

The concept of start-up ecosystem was introduced in theoretical framework and then revisited when the competitive landscape was introduced. In the interview with Mr. Suomela different ecosystem participants such as; co-working spaces, incubators & accelerators and virtual offices were discussed. Mr. Suomela confirmed that Finnish start-ups have previously used those services in Silicon Valley market entry. When it comes to trade promotion organizations, the authors relied on their own experience working for, and with one. Witrafi benefits from the fact that the relationship with trade promotion organization is not based on a traditional client-customer relationship, but rather on future growth expectations. In addition, TPOs can provide compelling funding schemes and Witrafi has an existing relationship with the Finnish TPO.

### **6.2.2 How other foreign start-ups have addressed the challenges of U.S. market entry?**

In 6.1.2 FireMatter View Survey (2015) results were referred to when some of the challenges faced by foreign start-ups in the U.S. market entry were introduced. The second portion of the research, which was not discussed, is how the surveyed foreign start-ups had responded to the challenges or how they planned to respond. Figure 15 shows the most popular actions (to be) taken.

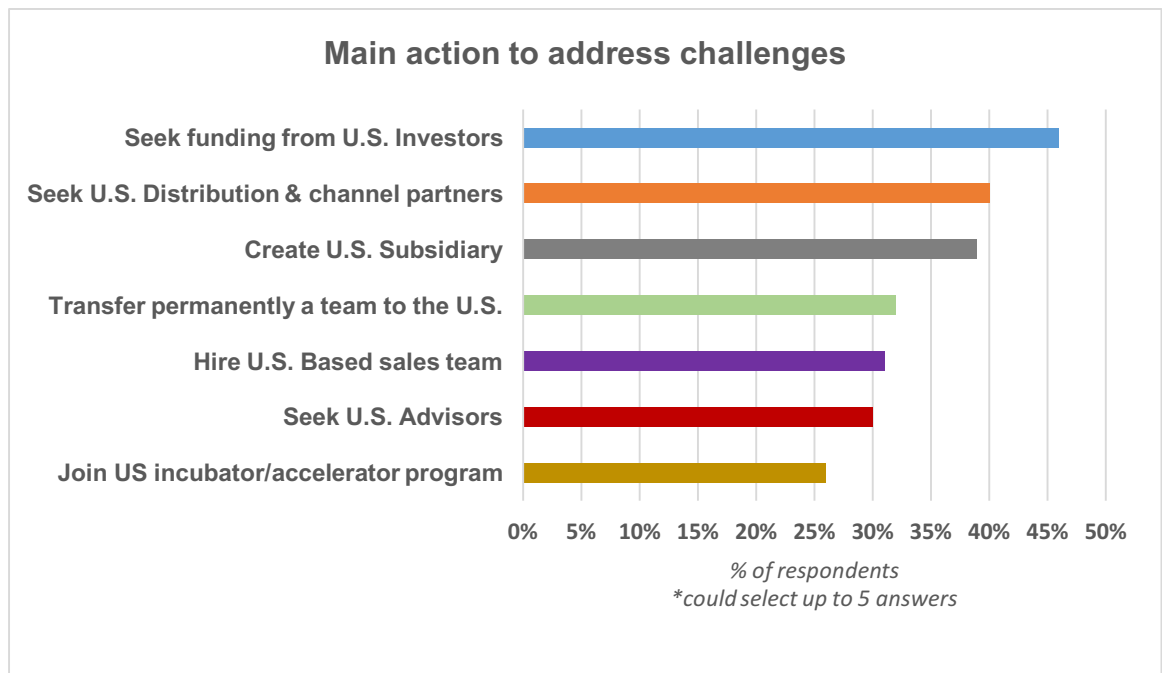


Figure 15. Actions taken/planned to counter expansion challenges (FireMatter Views Survey Report, April 2015, 15).

The most popular action was to seek funding from the U.S. investors, a major theme of this research. The authors will discuss the various funding options available for Witrafi both in the U.S. and in Finland. Distribution partners are not discussed in detail, for the reason introduced previously, although indirectly they are taken into account when discussing other partnering opportunities. The establishment of U.S. subsidiary was already mentioned when discussing the legal aspects of Bay Area business environment and is revisited in later chapters. Authors find it interesting that transferring permanent team to the U.S. has been seen as a solution rather than a challenge. This confirms the importance of local presence in the target market and is a sign that hierarchical entry modes are popular among start-ups. For Witrafi sending a bigger team to the Valley is not feasible at the moment, but it is an open option in the future. Likewise, hiring of a U.S. sales team is expensive and out of Witrafi's financial capabilities as of now, but the issue will be touched upon when discussing some partnering arrangements. The hiring of American employees is important in the longer term or right after market entry, but the authors see that the hiring process would likely happen outside the demarcated time period of this research.

Based on the expert interviews, authors got the impression that finding a U.S. based advisor is one of the most important aspects for start-up in internationalization. Thus it is surprising that only 30% of survey respondents were planning to address the issue. It may be

that the respondents see the prior options addressing the issue. The entrepreneurial nature may also play a part in the relatively low figure. Entrepreneurs tend to rely on advice from informal social networks. Significant portion of this research concentrates on finding what kind of role incubator & accelerator programs play in start-up ecosystems and what they could offer to Witrafi in internationalization.

### **6.2.3 Domestic funding options**

As has been outlined, Finland is a small nation with a small market. Some companies even find it difficult to find any market for their products in Finland, even though the skills and knowledge exist here and are ready to be used. Such situations arise especially when a subcontractor loses their main client due to shifting paradigms in the economy. Many such companies are left without a primary client. This has been a trend in Finland especially after the downfall of Nokia.

This has led to many companies finding their clients abroad, where the skills they possess or products they manufacture are still desperately needed. Others find the Finnish market saturated for them, or them being unable to compete with cheaper alternatives from abroad. Some may just want to grow their company through internationalization. This has been noted also by the Finnish government. They have realized that in order to keep a sustainable economy, the Finnish companies need to start exporting their goods and services. The Finnish government expenditure is 58 % of the GDP (Veronmaksajat 2015), which does not give the perfect environment for business for all companies. The market for many thus lies abroad, and exporting is the way to go.

The government has created many helpful tools and instruments to support the efforts of those companies that are willing to export. In essence, there are two main types of support available: financial- and knowledge-based support. The financial help takes the form of subsidies, loans or guarantees. Mostly they all require financial effort from the company itself as well, typically somewhere between 20-50 % of their own equity. The knowledge-based assistance encompasses consultation services and ready-made reporting to several markets and specific industries.

The services are conveniently gathered under one roof, Team Finland. There, a mind set on internationalization may find all the resources available from the government itself. Of course, it has to be noted that consultancy services on the topic may be purchased from a vast amount of commercial players as well. Sometimes, the government services themselves come as subsidized services performed by a commercial consultancy firm and not

the state-controlled FinPro, for example. Financial aids are given out by Tekes, Finnvera, Ely-keskus, Työ ja Elinkeinoministeriö.

In order to be applicable to the funding, a certain process must be followed. This process is very similar across different funding bodies, and it can be said to follow the path presented in figure 16.

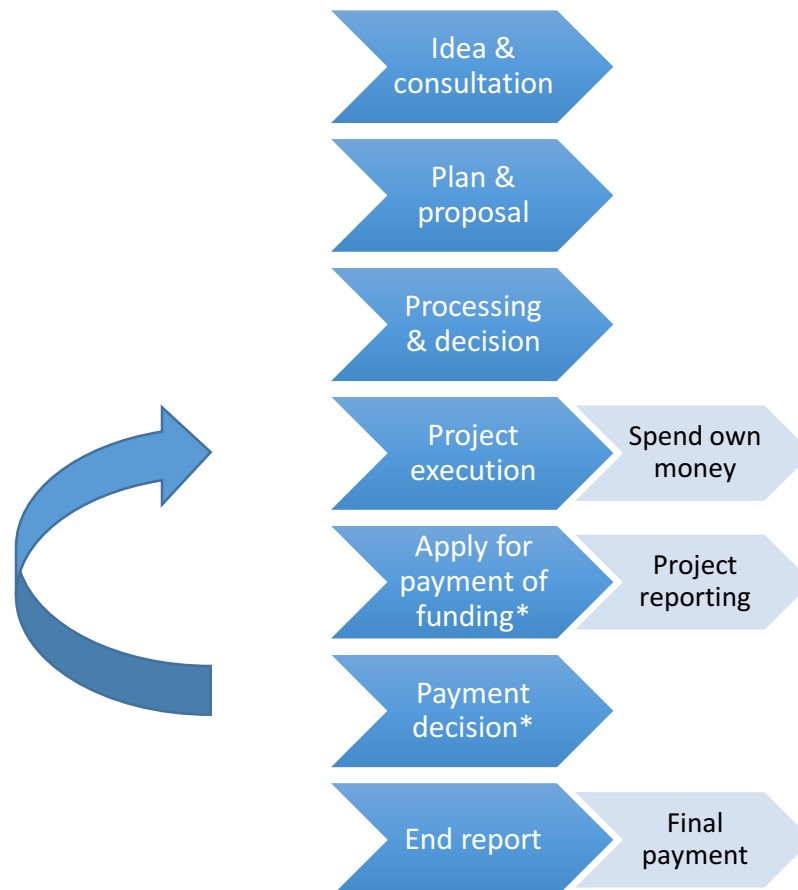


Figure 16. Team Finland funding process.

Initially the idea has to be proposed to the funding agency to gain some feedback; next, a plan is prepared and an application is made for the funding. The agency processes the application and decides whether or not to fund it. There may be several demands for the project set by the agency. Then the receiver of the funding starts executing the project. In most cases, they spend their own money at first, then report this spending to gain the funding. This happens after the final report or one of possibly several mid-term reports. The payment decision is made, and the company is ready to spend again. The process cycles again from project execution. In the end, results are reported and the final payment is made.

## 6.2.4 Foreign funding options

One of the key issues a startup runs into during its course of operations and before its possible exit from startuphood, is gaining funding. This research has examined options to seek funding for the internationalization itself, but gaining more funding can be an end in itself while abroad. One reason as to Why Witrafi is looking at the US for funding is the sheer amount of venture capitalist money flowing to startups, which in 2014 was 49.3 BUSD over 4361 deals, of which 24.2 Billion and 1406 deals were allocated to Silicon Valley-based companies (NVCA 2015, 16, 36, 37.). During the same year, venture capital deals in the Nordics amounted to only 846.4 million USD across 181 deals (Nordic Web 2015.).

Next the round sizes themselves should be looked at, as can be seen below in figure 17, where the phenomenon of growing funding round sizes is also clearly seen in the 2 regions, as seen from data gathered from Nordic Web (2015), Brasoveanu (2015) and CB Insights (2015a).

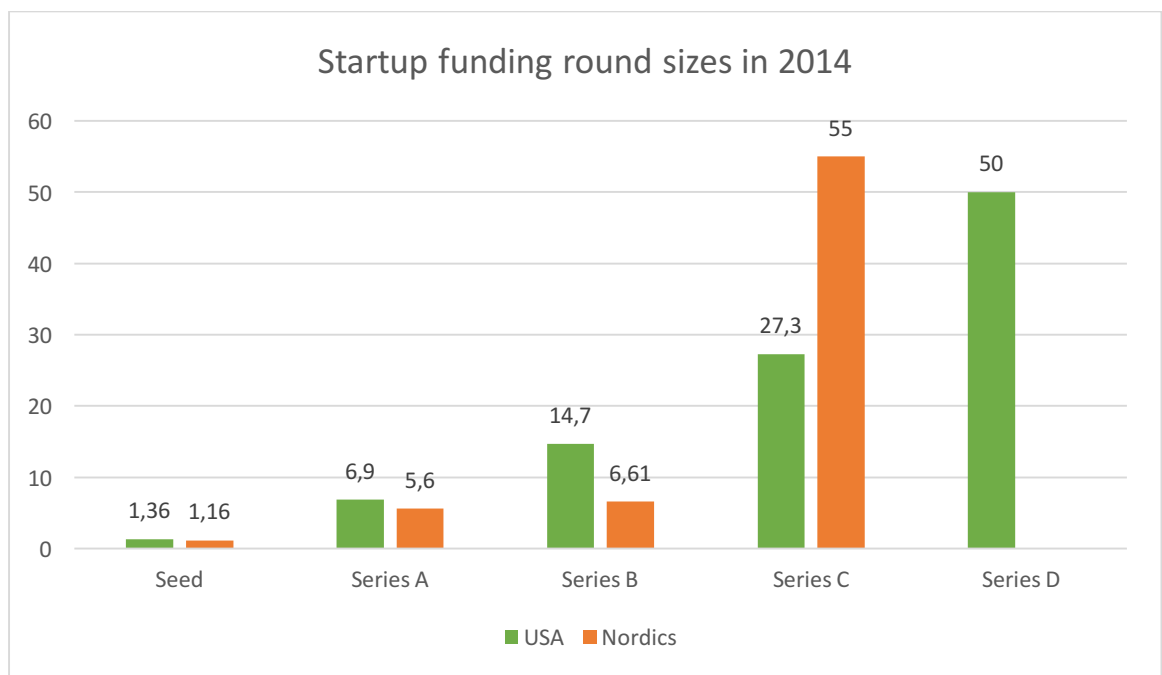


Figure 17. Startup funding round sizes in 2014.

Some differences can be clearly seen. The difference however is substantial especially in the Series A and B rounds. As Witrafi is currently searching for a possible A round, and a B to follow in the future, it should be examined what the benefit of the region is for the rounds. Data for the later rounds, C and D start to become unreliable, as for example the Nordic region experienced only one C-round and no D-rounds.

Table 4. Start-up seed round comparison.

Round	Nordic round size (million \$)	US round size (million \$)	Difference to US (million \$)	Percentage larger
Seed	1,16	1,36	0,2	17,2 %
Series A	5,6	6,9	1,3	23,2 %
Series B	6,6	14,7	8,1	122,7 %

In table 4 the round sizes of different levels of startup investment are evaluated. Firstly, the size of the given funding round, A or B, is shown for the Nordic region and next the same round size in the U.S. The following column shows the difference in size between the two regions. Lastly, the final column shows the percentage at which the U.S. round size is larger than the Nordic equivalent. It can be clearly seen that in the seed, A and B rounds it is beneficial to raise them in the U.S. This is a clearly quantifiable benefit the US funding market offers.

Several parking companies have gathered interest from VCs'. The most high-profile cases to date are for so-called on-demand valet apps, which are used to summon a mobile valet, usually moving around with a scooter. They come and pick up a customer's car at a user-designated spot, and park their car. It is also returned to where the customer wishes. One of these, ZIRX, has raised 36.4 million dollars, while another company, Luxe has raised 25.5 million from the U.S. (Crunchbase 2016.) Pango and Passport parking, two parking payment apps have raised 6.5 million and 7.54 million, respectively. (Crunchbase 2016.)

Yet another type of parking app, parking reservation apps, have also done well. Their service concentrates on applying the principles of the sharing economy into parking; with the service, one may either lease out their own space while not using it, or buy someone else's. ParkWhiz has raised 36 million dollars and SpotHero 27.5 million (Crunchbase 2016). One parking hardware company, developer of parking sensors and software Streetline, raised 50 million before getting acquired by Kapsch Trafficom. (Thinking Highways, 2015.)

These parking companies have been attractive to investors because the services they offer are easy to grasp by anyone. They are extremely scalable and help in the mundane task of parking. They have also all concentrated on one core business area, be it on-demand valet parking or parking payments on-streets. Witrafi has to figure out which angle to take in their U.S. expansion. Offering solutions in multiple business areas, even within



the relatively narrow parking service portfolio, may hinder Witrafi's competitiveness in all the areas. It may also drain resources while trying to compete with the fierce competition. This could have disastrous results, and therefore concentrating on one core business within the parking sector is required. The best course of action would be to firstly study the U.S. market, probe the different angles and business models with VC:s, consultants and those who have seen startups rise and fall. Only then would Witrafi be ready to take the plunge to try and take on the highly competitive U.S. market. This process has its own costs, and it takes time, but it may prevent Witrafi from crashing and burning if they try to embark on multiple business areas. Careful consideration and focusing on the best business area for Witrafi on the other hand may yield a very lucrative funding option through VC financing.

### **6.3 What can different partnering arrangements offer to Witrafi in U.S. market entry?**

The partners are equally diverse as are the benefits they offer through their provided services. The following will further illustrate what kinds of funding options there are to pursue internationalization, but also what kinds of services there are available. The following sub-chapters contain options available from the Finnish government, its supported organizations and those start-up ecosystem participants that the authors of this research have identified as a potential partnering opportunities. The authors wish to first examine what exactly do the different organizations do, and then what could they provide for the case company.

### **6.4 Team Finland**

Team Finland is a Finnish government network of trade promotion organizations. The network promotes Finnish companies and country-brand abroad, works to maintain good trade relations with other countries, helps Finnish companies to internationalize and vice versa aims to attract foreign direct investments inward, into Finland. (Team Finland 2014)

The objective of establishing this network was to improve coordination of government resources and to increase accessibility to services. As of 2016 the Team Finland network consists of; Ministry of Employment and Economy (TEM), Ministry of Foreign Affairs (MFA), Ministry of Education and Culture, Finpro, Finnvera, Tekes, Finnish Industry Investment, Finnfund, Finnpartnership, The Finnish Cultural and Academic Institutes, VTT, Centres for Economic Development, Transport and Environment (ELY centres) and Finnish-Russian and Finnish-Swedish Chambers of Commerce. In the network the different

ministries have mostly a supporting role and the various organizations are responsible for providing the services. Ministry of Foreign Affairs works with companies in public affairs related issues through its network of embassies and consulates. (Team Finland 2014)

Even though the organizations and services existed before the foundation of network, the services were scattered and companies found them difficult to use. With the renewed structure companies can simply call to a national service phone number to get things started. Currently there is 15 TF offices in Finland and in the autumn of 2016 Team Finland House will be opened in Ruoholahti, Helsinki, further centralizing the service portfolio. Worldwide TF has teams in 70 locations. In the U.S.A. services are offered by the Embassy in Washington D.C., by consulates in Los Angeles and New York and by Finpro and Tekes offices in multiple locations including Silicon Valley. (Team Finland 2014)

Team Finland offers internationalization services to all Finnish companies regardless of their size and industry, but due to practical reasons the network has invested more capabilities and organizational competencies in selected key sectors referred as 'thematic priorities'. In 2015 there were seven such sectors; cleantech, bioeconomy, ICT and digitalization, healthcare, arctic competences, creative industries and education. Team Finland stresses different sectors in different locations depending on the business opportunities of the environment. In the United States TF focuses on; cleantech, healthcare and ICT/digitalization. This is potentially beneficial for Witrafi due to digitalization being a feature of their product. (Team Finland, 7/2014)

Team Finland's internationalization services are divided into six service categories (listed below). Selected services together with those TF organizations that provide the services are discussed more in-depth in following sub-chapters.

- Advice
  - Helping companies to develop their internationalization strategy, offering of guidance and training on practical issues
  
- Opportunities
  - Providing market information and helping companies to identify market opportunities
  
- Networks
  - Helping companies to find key business partners and providing information on target market suppliers, service providers and buyers

- Visibility
  - Organizing trade missions abroad, renting premises for the purpose of trade promotion, supporting communication
- Financing
  - Offering financing in the form of aid, grants, loans and guarantees
- Public Affairs
  - Helping companies to communicate with foreign governments and officials, lobbying against trade barriers

Because Team Finland organizations are government funded most of the services are free of charge to Finnish companies. In practice however, companies pay for the services indirectly by paying corporate taxes. In some instances the customer companies need to cover the costs of participation to certain growth-programs and pay for example rent of premises if such services are used. (Team Finland 2014)

#### **6.4.1 Centres for Economic Development, Transport and Environment**

The Centres for Economic Development, Transport and Environment (hereafter ELY centres) are regional administrative bodies operating under the Finnish Ministry of Employment and Economy (TEM). These centers, 15 of them, provide several services and handle several governmental tasks which are grouped into 3 categories:

- Business, industry, labor force, competence and cultural activities
- Transport and infrastructure
- Environment and natural resources

(Centre for Economic Development 2015)

#### **ELY Services**

The ELY centres have different responsibility areas including supporting growth, development and internationalization of Finnish SMEs. ELY centres are a part of Team Finland network and this sub-chapter introduces those TF services that fall under ELY centres' responsibility.

ELY centres are in a way, the first contact point for TF services but their role as administrative body of TEM means that Witrafi is likely to collaborate with ELY in other areas of business as well. ELY counsels firms about different internationalization funding and market opportunities. Before the start of internationalization process ELY can help a firm to determine which organizational areas are ready for internationalization and on the other hand, in which areas the organization needs further strengthening.

In the theoretical framework where born-global companies were introduced, it was noted that many of them face challenges in managing the disparity between fast growth and inadequate resources, including human resources. ELY centres organize different managerial and employee training events, courses and seminars that Witrafi could take an advantage of. Some of the training events are related to internationalization and occasionally ELY also organizes market specific courses. Even if the event is not directly related to internationalization, it can be beneficial to participate for the sake of organizational development. ELY centre website has a calendar from where information about coming events can be found. Many of the events are free of charge but require prior enrolment.

### **ELY funding**

Ely centers encompass the Employment and Economic Development Offices (TE Offices) as well, which deal with keeping employment high in Finland. They operate as a part of the Ministry of Employment and Economy. (TEM 2016) These centers are very important in keeping industrial activities booming in many parts of Finland, as they provide various incentives and subsidies to companies in order to make them interested in setting up business within their jurisdiction. (ELY-keskus 2016b).

While they are mainly concerned in keeping business in their respective jurisdictions, they have realized that to keep it there the companies must have a larger market than is locally available. Therefore the centers also promote going international. Their main internationalization aid product is a Business Development subsidy, which is mainly aimed starting up, developing operations and growing the business. Great emphasis is taken in projects aiming at internationalization. (Ely-Keskus 2016a). Witrafi has also applied for this funding option last year, but the project was deemed too small and the company to be in a too early stage to pursue the project further. It also has to be noted that these centres are given a yearly budget, each regional one with their own, so your funding decision will be highly dependent on which region your company is situated in. Certain areas are more highly subsidized than others in order to keep jobs in more rural areas of Finland.

This product is aimed at growing already existing business or starting to a grow completely new business area. There are 4 main ways proposed by ELY (2016a) to pursue such a goal in this funding product:

- Internationalizing
- Pursuing other new markets or business areas
- Developing a new product or service
- Developing production methods

To receive this funding, certain steps must be taken. Since the funding is not aimed at funding existing operations, the project must be distinctly different from normal operations of the company and it must increase the corporation's competitiveness. The applying company must provide a project plan (prior to starting the project) which includes planned activities with their schedule & budget in addition to the goals that the project in question would pursue; ELY officials can provide assistance in the planning phase. The funding may be used for project-related expenses only; these may include for example salaries of project workers and travel expense. The percentage of the project that ELY can fund is 50 %, the other 50 % has to be provided by the company. (Ely-Keskus 2016a).

#### **6.4.2 Finpro Oy**

Finpro Oy is a government owned trade promotion organization and a member in Team Finland network. Finpro has three functions: Export Finland, Invest in Finland and Visit Finland, each specializing in different business sectors. Only Export Finland services are presented here as the other two functions are not relevant for Witrafi in internationalization.

Finpro has gone through major restructuring in recent years. First in 2002 the marketing related services were separated into a subsidiary and later in 2007 the marketing function was sold entirely. Finpro then focused on internationalization consultancy services that were partly funded by the government and partly by fees charged from customer companies. Finpro's Navigator service concept, as it was called, included firm specific internationalization consulting that helped in every step of the internationalization. (Tukiainen, Mattila & Korja 2014) In 2014 Finpro however sold the commercial consulting service to Fintra, a subsidiary of Soprano which is the biggest private internationalization consultancy service provider in Finland. Ever since the sale of consulting division Finpro services have been free of charge. Finpro now concentrates on the following TF service areas; market opportunities, advice, networks and visibility.

The authors interviewed Finpro's senior consultant Hartti Suomela about Finpro's role in the internationalization. It is clear that in Silicon Valley Finpro has a wide network of contacts and a good sense of the local business environment, but limited resources to give guidance to individual firms. At the moment, Finpro's Finland based services can offer more value to Witrafi.

Finpro, together with ministries, organizes Team Finland business delegations to different locations around the world. The purpose is to promote Finnish companies and provide networking opportunities. Participation to the delegations is subject to a fee, and the authors learned from Klyszeiko interview that such delegations are not necessarily very effective in the U.S. business environment.

The interview with Siitonen revealed that company has been involved in Finpro's Mobility as a Service –growth program (MaaS) since autumn of 2015. MaaS is a growth program for ICT-sector firms offering comprehensive internationalization related services. For Witrafi the program has offered only limited benefits so far, but according to Mr. Suomela the growth programs offer most of the Finpro and TF services in one package. Participation in MaaS can be encouraged as it simplifies Witrafi's relationship with TF service providers' considerably. Additionally one of the target markets of the program happens to be the U.S. which can prove to be a source of opportunities in the future.

In addition to Finpro's own services, it represents Enterprise Europe Network (EEN) in Finland. EEN is European Union's key instrument to improve SME growth in EU and it is based on the co-operation of different trade supporting institutions in EU countries. EEN maintains a large business cooperation database which helps companies to find partnership opportunities for internationalization. EEN also organizes business matchmaking events across Europe. (EEN 2016)

A state-owned specialized financing company, Finnvera is geared to give loans to Finnish companies in order for them to grow faster and achieve international customers. As Finnvera (2016a) describes themselves, they are a specialized financing company owned by the State of Finland, providing its clients with loans, guarantees (Finnvera is the official Export Credit Agency of Finland), venture capital investments and export credit guarantees.

Finnvera exists as a government financier to support Finnish firms. They are less specialized on innovation activities, and are concentrated on funding any company with high

growth potential. (Finnvera 2016b). Finnvera has also been of great help to the case company, as Witrafi has been granted 3 loans by them of which 2 have already been paid off, however none of them have been targeted at internationalization efforts.

Finnvera has a diverse palette of internationalization aids, including loans and guarantees. The basic loan and guarantee are for purposes of financing permanent activities abroad which are not equivalent to opening a normal sales office, but rather manufacturing or developing products and services.

### **6.4.3 Finnish Industry Investment**

As their name suggests, Finnish Industry Investment (later referred to as FII) is a government investment firm which invests in Finnish companies through private equity funds or directly. They describe themselves as “a government-owned investment company promoting Finnish business, employment and economic growth through venture capital and private equity investments. (Finnish Industry Investment 2016a).

The consensus of the previously introduced governmental organizations has been to invest in internationalization efforts as they help business grow. Naturally FII is also investing in firms with growth potential, and they have also recognized that internationalizing is the way to achieve high growth rates.

Their investment focus, when speaking about individual companies, is on “in companies in growth and internationalisation phases. We increase the availability of risk financing for innovative growth companies and boost their chances of succeeding in international markets.” (Finnish Industry investment 2016b)

Their investment size is typically 0.5 to 10 million euros. This amount is quite large on the Finnish scale, therefore it is clear that in order for a company to secure funding from them, they have been established for some time and have high growth potential. They do not fund early-stage startups, but rather more stable businesses. (Finnish Industry investment 2016b).

### **6.4.4 The Ministry of Employment and Economy**

TEM, as it is abbreviated (per the Finnish name Työ ja Elinkeinoministeriö), also promotes internationalization through services and funding for small- and medium-sized companies. As there are already various governmental institutions for funding individual companies’

projects, TEM promotes projects that have multiple participants; at least four are required. The funding can be up to 50 % of the total costs associated with a project. In contrast to ELY-projects, as this funding is aimed at funding efforts of multiple companies, you may mainly pay outside consultants to coordinate e.g. exports or make market analyses. It is also possible to plan and execute mutually beneficial trade fair excursions or the like. (TEM 2016).

#### **6.4.5 Tekes**

The Finnish Funding Agency for Innovation (Tekes) is a government agency that provides funding to many public and private sector research and development institutions. Tekes has also an important role as internationalization funding source. As a member of Team Finland it collaborates closely with the other TF organizations and has an office in Silicon Valley. Furthermore Tekes runs internationalization related programs and campaigns that could benefit Witrafi in the future. (Tekes 2016a)

Future Watch - program researches future market opportunities in different industries and locations, including in the U.S. The program publishes location specific research reports about future trends and developments in different sectors. The results help Finnish companies to adjust their operations accordingly. (Tekes 2016j)

Global Access Program (GAP) provides Finnish SMEs custom made business plans for the U.S. market entry. The business plans are prepared by UCLA Anderson MBA-degree students over the course of the six month program. The business plan includes comprehensive feasibility analyses and market studies. Once the program concludes the MBA-students give their recommendations to the companies. Currently Witrafi does not fulfil the financial requirements of participation, but the program is something that Witrafi should be aware of. (Tekes 2016j)

#### **Tekes funding**

Tekes funds companies in various stages of development, concentrating especially on innovation as per the name of organization. Tekes describe themselves as being the most important publicly funded expert organization for financing research, development and innovation in Finland, boosting wide-ranging innovation activities in research communities, industry and service sectors. (Tekes 2016a). Tekes divides their funding (Tekes 2016b) for startups into three main categories, which can be completed in order (from one to three) or not:

1. Planning for global growth



- Customer need
  - Target market
  - Concept testing
  - Team building
2. R&D funding
    - Developing the product
  3. Young innovative companies funding
    - Rapid global growth and business development

The government has recognized the Finnish companies' ability to provide the world with innovative solutions and their employment potential. Tekes is naturally a prime source of funding for startups. For the case company Tekes has given financial support in two projects, over a period of nearly three years. This has amounted to about 45 % of Witrafi's external funding. This Tekes is a natural choice to start the examination of the internationalization funding opportunities.

Tekes has two funding schemes which are partially, or completely aimed at internationalization; "Planning for global growth" and "Funding for young innovative companies". One typical decision factor for Tekes is whether a company can internationalize (Tekes 2016c). Therefore the option to use Tekes funding towards that aim is built-in to their funding schemes. To harness the full economic potential of the innovation, it must be also sold abroad to reach a larger market.

Planning for global growth is a type of funding that is very beneficial for the company, as it carries a high-percentage grant, meaning a large portion of the project is funded by a grant. The grant is of the de minimis-type. This funding is divided by Tekes (2016d) into two types according to the size of the company:

1. If the company is "small in size", (under five years old) and if the company's business idea is novel, carrying a believable chance of international success. These type of companies can receive up to 50 000 € in a form of a grant (maximum project size thus 66 600 €). While the grant may entitle the company to pay only 25 % of the project with its own money, to protect the company's survival they must prove that they have their own funding for at least 50 % of the project size.

2. Small and medium-sized companies which have internationalization aspirations and have formulated a preliminary plan for internationalization. They may get 50 % of the project as a grant, and up to 60 % of this amount may be paid up front, after the funding decision. The maximum funding is 100 000 € (thus maximum project size is 200 000 €).

The “funding for young innovative companies”, or YIC funding, is a highly selective Tekes-program meant for startups that have already succeeded to a certain extent. Since the inception of the program in 2008, 270 companies have been taken into the program, but only 75 have gone through it completely. (Tekes 2016e)

General requirements for the funding are similar to the “*Planning for global growth*” funding option. The company has to be under five years of age, it has to have less than 50 employees, less than 10 million € turnover or less than 10 million € final balance. At least 10 % of all current business costs must be geared towards R&D, and the resulting or used IPR must be under the ownership of the company. The company also has to be independent, and e.g. not formed through a merger. The company also cannot have distributed profits. (Tekes 2016f).

It is also extensive in many respects, as the Tekes material (Tekes 2016g) describes: firstly, it is divided into three steps of funding. In each of which you need to satisfy certain requirements (set individually for each case) to qualify for the next. The total funding may amount to 1.25 Million €, of which 500 000 € is grant money and 750 000 € loaned. Tekes funding may only amount to 75 % of the total project cost, therefore the company must also supply around 417 000 € on its own or through outside investments. This brings the total project size to 1.67 million €. The following is a description of the three individual phases, their funding amounts and durations, along with broad themes/purposes for each phase (Tekes 2016g):

1. 250 000 € grant, 6-12 months duration
  - a. High growth and showing competitiveness in the global market
  - b. Emphasis on global marketing and sales
  - c. Strengthening organization with necessary talent
2. 250 000 € grant, similar duration
  - a. Speeding growth and internationalization
  - b. Gain outside investment
  - c. Develop growth strategy, processes and the organization to support scalability
3. 750 000 € loan, similar duration

- a. Show the sustainability of the business
- b. Increasing growth through private & public funding

The requirements in qualifying for each successive phase are generally based on business development, opening new markets, securing more funding and bolstering resources. Tekes sets these limits through their analysis of the company and its business.

#### **6.4.6 Team Finland network as a partnering opportunity for Witrafi (services)**

The starting point for assessment of TF as a service provider partnering opportunity is that Witrafi has limited financial resources and Team Finland (TF) services are mostly free. Witrafi therefore cannot afford to rule out using TF services. Also, the interview with Witrafi CEO Sampsa Siitonen revealed that Witrafi has already collaborated with a number of TF organizations and Witrafi is also participating in Mobility as a Service (MaaS) program.

The question is to what extent the services can be utilized and how to use them wisely, so that the collaboration creates value for Witrafi. Also, research of Rasmussen & Madsen (2002, 17) which although refers to a Danish study, raises alarming questions about trade promotion agencies willingness and capability to work with “born-globals” such as Witrafi. Rasmussen & Madsen write that in a study concerning Danish born-global firms’ internationalization, not a single firm received monetary or any other type of help from Danish trade promotion agency. According to Rasmussen & Madsen: *“the reason was clearly that the Born Global did not fit the mental picture of the persons responsible for helping firms to internationalize”*. (2002, 17) Authors of this research did not find any evidence of such occurring in Finland, in fact at least Suomela seemed more than eager to work with firms that identify as born-globals. The work of Rasmussen & Madsen is already quite old, so it may be that the attitude towards born-globals has since changed.

It is worth remembering that Team Finland services are government funded. This can be seen as an advantage or a disadvantage. On one hand, the services are safe to use and there is a low risk of scams, disputes and misunderstandings. On the other, government policies change, and so does the funding and quality of such services. When it comes to Witrafi, public entrepreneurial and internationalization policies are of interest. In theoretical framework it was stated that Autio (2015a) sees that traditional public policy view on entrepreneurship does not mix well with entrepreneurial ecosystems (e.g. Silicon Valley), and that public actors have difficulties spotting market failures in such environments. Authors of this research understand that Autio referred to each country’s policies toward their own entrepreneurial ecosystems, but the point is still valid from the part that entrepreneurial policies lack clarity and that TF too, probably suffers from uncertain environment.

Nevertheless research of Autio (2015b) and his colleague has presented evidence that at least Finnish “Young Innovative Firms” –program, introduced previously, has generated real value. According to Autio for every one euro invested, the program has generated 1.11 euros of value. Confirming that such programs can be profitable from public policy view. When it comes to Finnish government’s policies on internationalization, Mr. Suomela (interview) said that he sees the current position as stable, even favorable towards Team Finland. However, he was a bit skeptical about the current “hype” of export promotion being one of the key projects (*kärkihanke* in Finnish) of current government, and called it politicians’ language.

Networking theory of internationalization introduced three “ways” how internationalization happens using networks; international extension, penetration and integration. Witrafi can use TF services in “extension”, in developing relationships relative to Silicon Valley. Team Finland has a presence on location and an excellent local market knowledge. Suomela told that his years of experience in Silicon Valley have increased his understanding of “best practices” in the U.S. market entry. He can help in “connecting the dots”, which is obviously very important aspect of building new network relationships and potentially a time saving measure for Witrafi. From network theory’s perspective it seems that the relationship between Team Finland and Witrafi is more useful and formal in market extension, but in international penetration the relationship would be more informal due to Team Finland’s limited resources in the U.S.

Suomela’s interview confirmed that in Silicon Valley Finpro can offer only limited consulting to individual firms. Thus, Finpro services are perhaps most useful before internationalization has begun, after which the funding continues to be a factor but the services less so. Finpro is in a process of hiring a second consultant to Silicon Valley, but it is likely that the hiring will not change the fact that Finpro does not offer firm specific business model consultation. Regardless, publicly funded organizations are a big collaborative opportunity for Witrafi because their sole purpose of existence is to advance Finnish economy and business. It is in their interest that Witrafi succeeds and creates jobs.

Authors asked from Suomela about his (and Team Finland’s) experience working with Finnish start-ups and other SMEs, and he said that he has worked with many start-ups. In fact, majority of TF clients are actually SMEs. The stage of start-up doesn’t determine whether it can use TF services and receive funding, although certain programs have conditions that have to be met. Suomela pointed out that in some cases the amount of guidance he has given to a start-up has been minimal. This would suggest that some start-ups

have previously deemed Finpro as unsuitable partnering opportunity, or that there are perhaps other better opportunities available. When asked, Suomela could not provide an exact number of Finnish start-ups currently doing business in Silicon Valley. He said that a number of them have virtual offices there and shuttle between Finland and Silicon Valley regularly.

Although Team Finland services are nominally “free”, they are paid indirectly via taxes and are of more limited in scope versus paid consultancy services. In using the services Witrafi would have to take into account the opportunity cost, at least when it comes to time management and focus. Concentrating too much on Team Finland and ignoring other collaboration opportunities would be a mistake. Additionally, it has to be said that the U.S. business environment is very different from that of India or China. For example participation in a government trade delegation is not an effective way to conduct business in the U.S. (Klyszeiko interview).

It can be said that Team Finland from the part of services is a noteworthy partner for Witrafi in internationalization, as long as Witrafi understands the limitations of relationship. It is advisable to continue being active member of MaaS program, which can prove to be valuable source of market knowledge and insight for Witrafi. Mr. Suomela stressed that reactivity is important, Witrafi is “competing” with other Finnish companies for his and his colleagues’ time. He is always open to advice Finnish companies in the U.S. as much as he can, and as has been mentioned, he knows a lot about practical issues affecting Finnish businesses. It is advisable for Witrafi to contact Mr. Suomela about potential partners in Silicon Valley and ask if he knows something or can refer to someone who can give their expert opinion. In theoretical framework it was mentioned that for start-ups ‘trust’ is important and that to fulfil the conditions of trust in relationship building, an intermediary can be used. In Silicon Valley Witrafi could potentially utilize TF as an intermediary. While working for the U.S. Commercial Service Matilainen experienced how some U.S. businesses used USCS as an intermediary when entering the Finnish market. This would suggest that the use of government services is not entirely foreign in the U.S. business environment, and can in fact increase the trust between foreign business parties.

Having a trade facilitator network that can give guidance on internationalization and has an extensive service portfolio is not a given. Many Finnish companies still remain unaware of Team Finland services as experienced first handed by author (Matilainen) while working in the U.S. Embassy. Inquiries from Finnish SMEs were regular and often concerned issues that are the core of Team Finland services. Knowing who to contact saves everyone’s time.

#### 6.4.7 Assessment of Team Finland funding options

Firstly, there are clearly unsuitable choices in the domestically available government-backed funding options. These are mainly Finnpartnership, Finnfund and Finnish Industry Investment. The first two cannot be considered as they deal only with projects that are targeted at developing markets, not developed ones, which the U.S. indeed is. Finnish Industry Investment on the other hand invests only in more stable businesses, and not early-stage startups. Therefore the more suitable choices are Tekes, ELY, TEM and Finnvera. Their funding options can be seen below in the table 5.

Table 5. Funding options of various Team Finland organizations.

Entity	Entity type	Product	Funding Type	Total project size (1000 €)	Own equity
Tekes	Innovation Funding agency	Young Innovative Companies funding	Grant + loan	1 667	25 %
Tekes	Innovation Funding agency	Planning for global growth	Grant	<100	25 % or 50 %
Finnvera	Financial institution	Loan	Loan	N/A	N/A
Finnvera	Financial institution	Guarantee	Guarantee	N/A	N/A
Finnvera	Financial institution	Export guarantee	Insurance for export trading	N/A	N/A
ELY	Government bureau	Business development funding	Grant	50 %	50 %
TEM	Ministry	Internationalization funding	Grant	50 %	50 %

Out of these options, Witrafi is not eligible for the guarantees given out by Finnvera. Mainly because of the nature of the operations Witrafi would carry out; they would not necessarily be direct exports.

**Finnvera's** loans on the other hand, are a very suitable option for Witrafi if this kind of financing is required. Their site states that they charge interest by a combination of reference (*viitekorko*) and margin rates, in addition to a delivery fee for funding granted. Witrafi has an already established relationship with Finnvera, with three loans given and two paid back. It is likely that Finnvera is one likely funding choice for Witrafi, because of the low interest rates and Finnvera's friendliness towards internationalization projects.

**Tekes** is also a previous funder of Witrafi. Having participated in two projects to date, the last one still ongoing. If the current project ends well, then Witrafi is poised in a position where it could apply for more Tekes-funding with continuously favorable results from previous projects, and have a high likelihood of succeeding in applying for the next funding.

The smaller of Tekes' two internationalization-headed programs is the "**Planning for global growth**" program. It can yield up to 50 000 € as the Tekes-funded 75 % of the project, whereas the rest 25 % has to come from the company itself. This is a very cost-effective and risk-averse way to probe into internationalization due to the cost for the company being minimal.

The funding is of the so-called de minimis-type. It has a restriction for the amount available to companies, 200 000 € per 3 consecutive accounting periods. Witrafi has exhausted this limit, and only in 2017 would they be applicable to more. Therefore this funding option is unavailable to the company.

The funding for young innovative companies, or **YIC funding**, on the other hand does not have this restriction. The size of those projects are larger as well: up to 500 000 € grant and 750 000 € loan. The funding is meant for "rapid business development" (TEKES on their website). Internationalization is a natural part of this development, while development in other areas are also expected by Tekes. Due to Witrafi's previous relationship with Tekes, venturing into the YIC funding is a natural step for them. They have also previously embarked on two projects of the R&D-type funding with Tekes, and once they are successfully completed, they point Witrafi towards the YIC funding. For starters, Witrafi would have to acquire at least 107 000 € to match the 25 % funding requirement of funding in the first phase, which is 250 000 € from Tekes, 75 % of the project. Total project size would then be 357 000 €. Witrafi is not yet profitable, so 50 % of this would likely be spent

on wages and other employment expenses of the existing employees. Another 25 % would go into other R&D expenses and possible new personnel. The resulting 25 %, however, may be used towards internationalization, possibly even fully. This comes to around 90 000 €, and could include travelling internationally to trade fairs, conventions and other events for networking and hunting for local partners.

**ELY-keskus** offers its business development funding to companies seeking to internationalize, and the 50 % of the project it pays for with their grant is a good start to internationalization. This funding however is also restricted with de minimis-rules, therefore, as with the “planning for global growth funding”, it is inaccessible to Witrafi for now.

**Finnish industrial investment** funds companies with a steadfast internationalization plan, but generally not startups. They concentrate on more stable businesses. While the investment size is 0.5-10 million €, something Witrafi is looking for, Witrafi is not in the stage of its life where the more risk-averse Finnish industrial investment would invest in them. After the internationalization planned and when steady cash flow from it can be achieved, they may be a more feasible option, and planning to satisfy their requirements could be a goal to reach as the company matures.

**The Ministry of Employment and Economy** funds projects strictly in conjunction with other companies. The modus operandi is to gather at least 4 companies interested in an internationalization project, find a consultancy agency for the companies to work with, and fund the collective project. It is difficult to say how much the funding would be, as it differs case by case. There is also usually an intermediary that handles the project’s budgeting, payments and negotiations, so the other participating companies don’t need to. When Witrafi participated in such a project of internationalization into France, they paid 40 % of the costs (10 000 €) and TEM 60 % (15 000 €). Now the grant percentage is 50 %, and 50 % has to come from the company itself. It is however difficult to plan the project ahead, the project to France was one year in duration, but the intensity of the project is not high. If there is a program targeted towards the U.S. during the time Witrafi plans to execute their internationalization, then it is highly recommended to take this option as it is not restricted by de minimis regulations and can yield excellent results due to expert help in the center of this funding scheme. Among other fundable expenses are trips abroad aiming to meet foreign business partners or visit a conference, to give examples. Such a trip to the U.S. could be planned by Witrafi through first using a consultancy agency to find suitable events and partners along with a market study, and then visit the U.S. for meetings and networking.



## **6.5 Trade Supporting Institutions and service providers**

Trade Supporting Institutions (TSI) operate much in the same way as trade promotion organizations, introduced in key concepts, do. The difference being that TPOs are official government funded agencies whereas the term TSI covers also independent business associations and institutions. Although TSIs often charge for services by requiring a membership, their independence from government can be a good thing for the quality of services. (DMI Associates for WTO 2006, 5)

### **6.5.1 AmCham Finland**

Amcham Finland is a non-governmental, non-profit B2B network based in Helsinki. Amcham is entirely funded by membership fees, which guarantees its financial independence. Amcham supports the business development and growth of its membership organizations. It offers a range of business services and programs, provides networking opportunities and works to maintain favorable market conditions by engaging with decision makers. Recently Amcham Finland opened an office in New York, further improving its network in the United States. Amcham has approximately 375 membership companies of all sizes from start-ups to multinationals and although independent, it works together with a network of some 40 Amchams around the world. (Klyszeiko interview)

Amcham encourages its member organizations to get to know each other which increases the effectiveness of networking. Also, Amcham plays an active role in business match-making by for example publishing articles about its members via social media platforms. Such promotion can lead to surprising partnership opportunities as Amcham reaches business decision makers directly. (Klyszeiko interview)

The authors interviewed Mr. Mike Klyszeiko who is the founder and director of LaunchpadUSA program in Amcham. LaunchpadUSA supports the U.S. market entry of Finnish companies by providing expert assistance in all stages of internationalization. The program assists its members in breaking into the market, supports in scaling of the business and guides through the process of establishing market presence. The cost of Amcham membership for Witrafi would be 3,500 euros annually, which although for Witrafi a considerable sum of money, could offer more sustainable access to the U.S. market.

LaunchpadUSA is always running meaning there is no program length. Mr. Klyszeiko stressed that internationalization is a lengthy process and that time constrained programs can offer less value. Amcham has worked with a number of Finnish companies that have successfully completed the market entry, thus they have knowledge about what works and

what does not. According to Mr. Klyszeiko, Launchpad helps in “laying the foundation” for the market entry. They can give advice on market conditions, visa requirements, risks and sales and marketing (Amcham). In addition to the expert advice and market entry planning, the program can offer targeted networking in all fields of business.

One of the more concrete benefits Launchpad can offer to participants is access to a virtual offices. Virtual offices are a low cost, low risk way of increasing market presence and credibility in the U.S. The arrangement provides a firm with U.S. mailing address and telephone number and gives the appearance that a firm has presence in the location of the office, although no actual office space exists. In Amcham’s case, the program participants also have (a limited) access to actual office space where meetings can be scheduled. For Witrafi it is a downside that Amcham Finland’s U.S. operations are based in East Coast.

### **6.5.2 Other trade promotion agencies**

Traditional Chambers of Commerce (CoC) are of limited help for Witrafi in internationalization. Nevertheless they are a source of international trade information and provide some services that Witrafi may need at some point in time. The Finnish Chamber of Commerce (FinnCham) is the national level CoC in Finland whereas Helsinki Region CoC would be the contact point for Witrafi. The annual membership fee of Helsinki CoC is 198 euros and joining would make Witrafi eligible for discounts on CoC services, including granting and confirmation of trade documents, and on CoC training events and seminars. (Kauppakamari.fi, 2016)

U.S. Commercial Service (USCS) is the American counterpart agency for Finpro. The Finnish section operates out of U.S. Embassy Helsinki and although they work mainly with the U.S. companies and their subsidiaries, they also organize events, participate in trade fairs and work to maintain good U.S. - Finnish business relations. USCS can offer little to Finnish start-ups but if Witrafi was to receive an invitation to one of their events, participation can be strongly encouraged. USCS does work with Finnish companies too, but those are big FDI investors or established corporations, (Finnair, Wärtsilä, Vaisala, Nokia etc.) with large U.S. divisions.

Finnish American Chamber of Commerce (FACC) is the representative of Finnish CoC in the United States and it operates in many regions across the country. FACC’s New York and Florida branches are “most active”, some of the other branches no-longer seem to update their websites. For Witrafi FACC is of little to no value, but if need to contact arises, Amcham represents FACC in Finland.

### 6.5.3 Legal advice

Hiring of a good lawyer or a law-firm is one of the first steps a Finnish company should do when entering the U.S. market (Laitinen 2007, 34). Before or right after entering into the U.S., Witrafi is likely to need legal advice in:

- Immigration issues
- Non-disclosure agreements
- Contract negotiations
- Due-diligence of prospective U.S. partners
- Financial instrument usage (i.e. using debt-equity financing)
- Intellectual property right issues
- and in incorporation process of U.S. subsidiary

Later, legal services might be needed in various scenarios such as; tax advice, transfer pricing, dispute settlements and in hiring of new employees and company representatives.

According to the interviews conducted by authors, it is of utmost importance that the selection process of legal professional(s) is done properly. The selected lawyer or law-firm should have experience in international trade, know the business environment of the location and be familiar with the industry and state-level regulations. It is also worth remembering that law-firms often have wide contact networks and good business understanding. Depending on the closeness of relationship, the client may be able to utilize law-firm's expertise also in other business issues.

Amcham's Klyszeiko stressed in the interview that saving money on the legal advice is not wise. He pointed out that even if incorporation can be done remotely and inexpensively by using internet agents, the results of such services are often bad and end up being more expensive in the end. According to Bureau of Labor Statistics, the median hourly wage of legal occupations in San Francisco area was \$67 in 2014, whereas the hourly billing rate of legal services for businesses in the area was between \$293 and \$408 in 2015 (Up-Counsel). It is however difficult to draw conclusions from statistics. Many law-firms charge less from start-ups in hope of developing longer-term customer relationship. Research indicated that many law-firms also provide couple hours' worth of free counselling for start-ups. Finpro's Suomela noted in an interview that some law-firms may offer to exchange legal services for equity, but he did not say whether such deal is advisable or not.

Giving specific advice on possible candidates in this thesis is not reasonable, but both the Amcham and Team Finland can give references of those law-firms and lawyers that have successfully worked with Finnish companies in the past. In case Witrafi was to join Amcham LaunchpadUSA-program it would be entitled to one hour of free legal advice. Likewise many other start-up programs include legal counselling.

#### **6.5.4 Banking, Accounting & Consulting**

The services of banks, consultants and accounting firms are not a primary concern for Witrafi in internationalization, but it is likely that some of their services need to be used in the process. Thus selected aspects of said services are covered.

The use of banking services is not necessarily required until there is a longer term commitment to establish a local presence and there is cash-flow needs from Witrafi's Finnish account to the U.S. or need for U.S. credit. The use of bank loans for the purpose of financing the internationalization is demarcated out of this research because they were deemed unsuitable for start-up funding. In banking services California Governor's Office (2012, 28) recommends using a bank that has affiliation with a bank in the home country of service user's as this can ease the international transactions. Also, prior to opening a bank account in California Witrafi would have to register to conduct business in the state, register fictitious business name and acquire employer identification number (2012, 28). However it is worthwhile considering using any of Silicon Valley's number of local banks (e.g. Silicon Valley Bank) that have specialized in high-tech start-ups and have a lot of experience working with foreign start-ups relocating to the Valley. Additionally, Witrafi should consider factors such as access, fees and services provided before committing to be a customer of a certain bank. Similarly as in the selection of a law-firm, the hidden services such as potential new contacts should also be considered.

The use for an accountant likewise is limited in the internationalization process. However in case Witrafi decides to incorporate a U.S. subsidiary it would have to consider consulting an accountant. According to Rapo & Seulamo-Vargas (2010, 40) Finnish companies mostly outsource accounting and use accounting services for filing federal and state taxation and in handling of employee payroll and benefit issues. CostHelper estimates that the cost of accounting services for preparation of financial statements is \$75-600. Laitinen (2007, 93) writes that contrary to Finland, the U.S. does not require annual auditing from corporations, but that some kind of financial statements need to be prepared for taxation purposes. Also noteworthy is that the U.S. follows GAAP standards for accounting, as opposed to globally used IFRS. When consulting a U.S. accountant Witrafi should be aware that there are certified public accountants (CPA) who are licensed by the state and non-

CPA accountants in the market, only CPAs can prepare audited financial statements (CostHelper).

When it comes to consultants, there are two different types that could be used in internationalization, management consultants and local consultants that represent the company (Rapo & Seulamo-Vargas 2010, 32). As discussed previously, in Silicon Valley Team Finland and Finpro can't offer firm specific consulting but they can recommend private consulting firms. A Finnish consulting firm named Fintra (part of Soprano Group) is specialised in international expansion and continuum of Finpro's closed consulting arm. The use of consultants has several disadvantages for a start-up. Firstly, they cost money that Witrafi does not necessarily have at the moment. Unfortunately it is impossible to give exact figures as for how much the use of such services would cost as they are negotiable. Secondly, Klyszeiko (interview) discouraged the use of consultants in U.S. market entry, or at least over relying on such services, as according to him a firm would have to go to the target market in any case.

## **6.6 Silicon Valley start-up ecosystem –partnering opportunities**

This chapter thoroughly examines what the participants of the Silicon Valley startup ecosystem concretely are. The entities themselves are described in conjunction to the opportunities they provide. Of course, the partners have been delimited to opportunities available to pursue for a startup such as the case company.

### **6.6.1 Investors**

The stage which Witrafi resides in its operations currently is a phase where during this year, they should gain increasingly more customers but also secure more funding to continue its R&D efforts on a scale it wishes to keep them. In the startup world, this next round could be designated as a Series A round. This is a financing round done after the pre-seed and seed investment rounds, and it is usually larger than the previous rounds. This round still carries a high level of risk for the investor, because rarely at this stage is the company profitable but it carries a promise only of immense profits. Of course, the risk is less than in previous rounds, but here the amount of financing too is larger. (Investopedia 2016f). The financing is usually given through an offering of preferred stock, which in contrast to common stock, usually carries extra benefits for the investor in question; these may for example include anti-dilution clauses. (Investopedia 2016b) With this round, the valuation of the company should also rise.

## **6.6.2 Incubator and accelerator programs**

Incubator and accelerator programs are start-up ecosystem organizations, classified as support services/systems in various theoretical models, such as “eight pillars” introduced in theoretical framework. Here they are first introduced and then discussed on a general level. Appendices provides a closer look to selected programs.

### **What is an incubator program?**

The International Business Innovation Association (InBIA) defines business incubators as programs that nurture the development of entrepreneurial companies in their start-up period. Incubators provide startups with business support services and resources that help them to survive the uncertainties of startup period. The goal is that ultimately the startup becomes self-sufficient. According to InBia there is over 1250 (2012) incubators in the United States alone, most (93%) operating as non-profit organizations. (InBia 2016)

Albert and Gaynor (2006, 133) write that incubators are embedded to their social, cultural and economic environments which explains why incubators in different locations may specialize on certain business sectors. Incubators in Silicon Valley are likelier to focus on high-tech than traditional manufacturing. Still, according to InBIA 58 percent of the U.S. based incubators work with a mixed group of startups whereas only 37 percent have focused solely on technology startups.

Incubators offer both tangible and intangible benefits for incubatees. The tangible benefits often include access to accommodation and support services whereas access to knowledge, heightened confidence, increased credibility and companionship are examples of intangible benefits (Albert & Gaynor 2006, 133). The term incubator is however so loosely defined that it is difficult to generalize what are the definite benefits. Virtual incubator programs for example do not provide accommodation, but they are nevertheless considered to be incubators. (InfoDev 2011, 21).

Non-profit incubator programs such as those run by national development agencies and public research centers often have objectives such as; creating jobs, developing economy and executing key public policies e.g. supporting the growth of an industry. Additionally, non-profit incubators may wish to support commercialization of products and development of entrepreneurial spirit in their communities. Among other things, public incubators can offer credibility, seed capital and linkages to national and international programs to the incubatees. (Albert & Gaynor 2006, 135)

Private incubators such as corporate entities may be motivated by profit or they may seek access to new technologies. Sometimes incubation programs are used as a tool to develop entrepreneurial culture and innovative “drive” within organizer’s own organization. Private incubators too, contribute by helping incubatees in various ways; they can help in product and market testing, give IPR advice, offer financial resources and provide a route to commercial markets. (Albert & Gaynor 2006, 135)

### **What is an accelerator program?**

Accelerators are programs that much like incubators, support startup companies in their early stages. Although many of the services offered by accelerators are same or similar with those of incubators’, some distinct features exist. Cohen (2013, 21) writes that incubators tend to provide startups with time and room to grow whereas accelerators speed up the market interaction. The duration of programs is often cited as a major difference, accelerators are much shorter one to three months, compared to one to five years of incubator programs (Dempwolf, Auer & D’Ippolito. 2014).

Dempwolf & al. (2014, 20) have identified six different types of organizations that offer accelerator programs; incubators, venture development organizations, universities, proof-of-concept centers, corporations and innovation minded for-profit organizations (innovation accelerators). The objectives of all but innovation accelerators are mostly aligned with those of incubators’ (introduced previously). For research purposes only innovation accelerators are discussed in here.

Innovation accelerators, also known as seed-accelerators, have a simple business model. First, they selectively accept a group of promising startups, mostly from the field of technology. The group of startups, known as cohorts, is then typically given a seed of \$18,000 - \$25,000 each, in exchange for equity stake of usually between 4-8 percent (Dempwolf & al. 2014, 10). Cohen (2013, 22) suggests that the fact that accelerator invest their own capital to the startups can lead to a closer and stronger relationship than in the case of incubators. The managers of accelerator programs also often have previous entrepreneurial and angel investor experience themselves, which can help them to understand the startups better (Cohen 2013, 22).

Over the course of the accelerator program the group, which often develops a strong camaraderie (Cohen, 2013, 22), is provided with services and mentoring geared towards fast development of product and business model. Upon completion of the program a public “demo-day” or a pitching event may be held to find additional investors for the startups (InBIA). For the organizer the group of startups represents a portfolio which diversifies

risk. Even if some of the startups end up being failures, the organizers can expect a minimum acceptable return on investment (Dempwolf & al. 2014, 15).

In addition to the intense mentoring, the accelerators provide the participating startups with wide networks. Baird, Bowles & Lall (2013, 15) surveyed 52 programs and most had a formal partnerships with one or more of the following groups: corporations, universities, investors, foundations and governments. According to the same research 98% of the surveyed programs offered access to potential investors and 66% provided post-program support at no cost. Cohen (2013, 21) however reminds that graduation from acceleration program does not guarantee success for a startup, rather it speeds up the business cycle, leading to a faster success or failure.

### **Incubators and accelerators as a partnering opportunity**

San Francisco Bay Area is home to a large number of incubator and accelerator programs. Preliminary scanning of programs indicated that whether a program is called 'incubator' or 'accelerator' is less important. Many of the programs use mixed names or deny being one or another altogether. Regardless of the name used, the programs' value proposition to start-ups is similar and clear, they help start-ups to achieve growth by providing support services and access to mentoring. Here both type of programs are discussed together and some of the differences are compared when appropriate.

The word 'acceleration' of course means to speed up, and if somewhere, in Silicon Valley acceleration of start-up cycles is embraced. It is also linked to the lean start-up methodology introduced in theoretical framework. Alfredo Coppola, the co-CEO of U.S. Market Access Centre, said in a presentation that their program was developed based on two questions they asked from a group of already successful foreign entrepreneurs in Silicon Valley: "How much of your own money did you spend before the first big deal?" and "How long did it take?" According to Coppola they found out that average amount was between \$250 000 - \$300 000 and the average time needed was 18 months or more. (Coppola, 2014) Thus, accelerating that cycle to last for only three to six months (average length of accelerator programs) can save start-ups a lot of money and can be considered to be a tempting value proposition.

For this research five Bay Area accelerator/incubator programs were analyzed (appendices) and several other programs scanned to determine whether Witrafi's participation in such programs is recommendable or not. The assessment of programs is based on secondary sources, and for that reason there is some cause for concern about validity. If



Witrafi at some point decides to apply to one of the programs, it is advisable to consult someone who has previously participated in program in question.

First, all reviewed programs advertise that they are in business of helping start-ups to seamlessly join the Silicon Valley ecosystem. They promise access to contact network consisting of investors (VCs, funds & angels), other entrepreneurs (alumni) and Silicon Valley corporations (tech scouts). Those contacts are something that Witrafi needs, but does not currently have. In the theoretical framework it was established that because start-ups need trust, but don't fulfil the conditions of trust, they need to rely on third-party recommendations and referrals. Because accelerator programs are A) well-known in Silicon Valley and B) draconian in selecting who can join (getting to participate is an accomplishment), participation in such program could potentially solve two major internationalization hindrances for Witrafi; 1) access to potential partners and 2) lack of trust.

Another observed selling argument for all of the programs is that they promise to guide the participating start-ups through the validation of business models and promise help in creating scalable business. This argument is of course based on the previously discussed idea that start-ups typically have to revisit their business model numerous times before getting it right. The importance of this selling argument depends a lot on what stage the start-up is (maturity) and how experienced the founders are. Figure 18 shows how the benefits of participation change as the start-up matures. More experienced founders with a start-up at a later developmental stage are less likely to need help in validation but benefit from the networking.

One could argue that if a foreign start-up has reference sales in foreign location, it has a validated business model and thus does not need the help of accelerator programs. That is however not necessarily true, and many marketing professionals would point out that depending on the market, product differentiation is needed. Regardless, Amcham's Klyszeiko (interview) suggested that sales references are important to increase credibility in the U.S. market entry. In any case, Witrafi will need at least some feedback to know whether it needs to re-validate or not, and all of the analyzed programs could improve Witrafi's access to customers who are needed in validation.

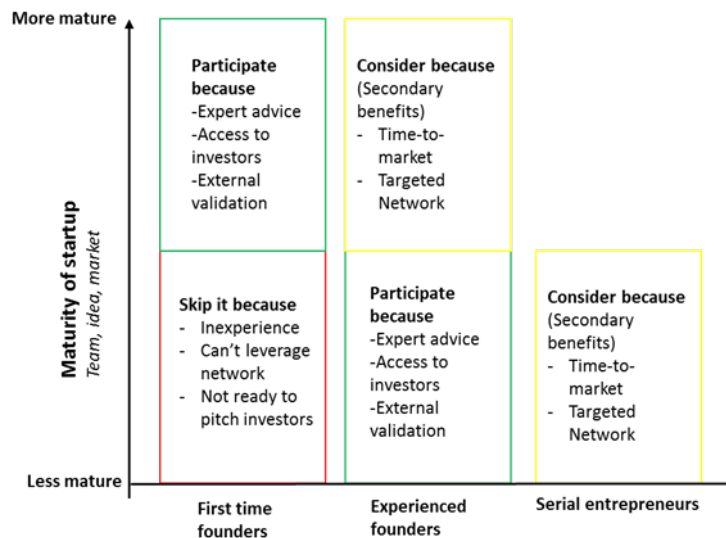
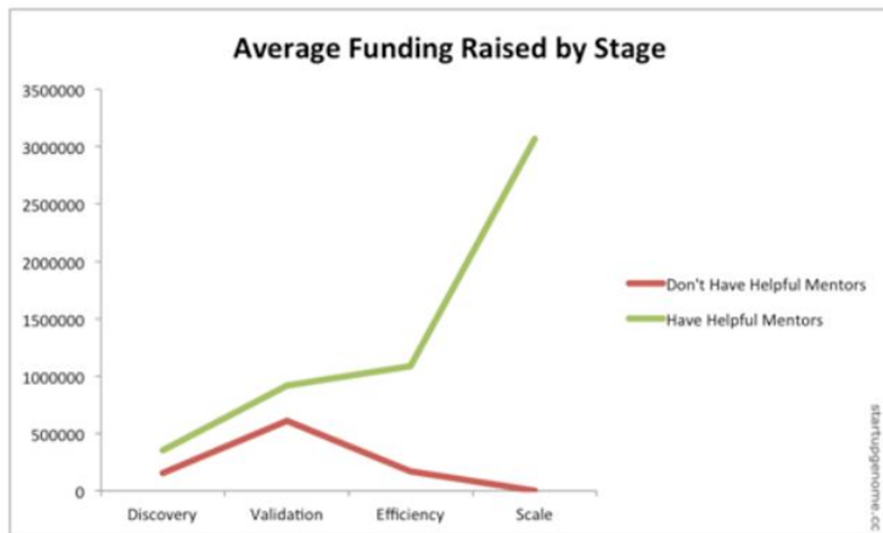


Figure 18. Benefits of Start-up accelerator programs and relationship between founder experience and start-up stage. (TechCrunch November 2015)

Participation in accelerator program provides other benefits as well, and for an international start-up many of the benefits are elevated. Start-ups, wherever they operate, are surrounded by uncertainty and some of it is caused by the environment. When a start-up enters into a foreign market the amount of perceived environmental uncertainty increases. All of the reviewed accelerator programs had prior experience in working with international start-ups and some programs were clearly targeted towards them. Having that experience is important because otherwise the programs could not know what kind of challenges the international start-ups face. Many of the reviewed programs actively promoted their “internationalization support services”, such as legal advice in immigration and incorporating issues. Additionally all programs mentioned that they can give advice on the housing market and help with other practical issues of setting up the business.

One of the key benefits of accelerator and incubator programs is that start-ups have a guaranteed access to mentors. Mentors are a feature of all programs whether incubator or seed-accelerator. In a 2015 TechCrunch article Frank Vallese named mentors as the most important benefit of accelerator programs. Vallese writes that even though mentors often are very successful in their own business field they are not financially compensated by the programs but rather want to give back to the community by sharing what they have learned. He emphasizes that to benefit from mentoring the start-ups have to ask a lot of right questions and be active in seeking advice. It is difficult to evaluate the tangible benefits of mentoring, in addition to the previously mentioned ones, but Startup Genome (figure 19) found that having “helpful” mentors is linked to start-up’s success in raising funding.



filter: only startups working full time that raised funding / n=160

Figure 19. Mentor's role in securing funding. Startup Genome Report (2012a, 45)

### What are the costs, pros & cons?

When comparing the different programs the biggest differences are found in terms and conditions of participation. Seed-accelerator programs such as popular Y Combinator and 500.co invest seed capital for return of an equity stake from start-ups, and additionally often charge a participation fee. Other type of programs may take an equity stake but do not provide any funding. Y Combinator and 500.co are known for industry leading standards, Y Combinator invests \$120,000 for equity stake of 7% and 500.co invests \$125,000 for equity stake of 5% but there is a participation fee of \$25,000 which is deducted. The spread in participation terms and conditions is wide, and occasionally they are not at all transparent.

For Witrafi joining a seed-accelerator would be possible stage wise. Many accelerators are stage agnostic and Witrafi has not raised Series A funding, which if it had, would complicate things. However the question is would it make sense to give away an equity stake? The funding alone should not be seen as main motivation. Y Combinator's Paul Graham (2007) writes that the question can be answered with a simple equation  $1/(1-n)$ , where n represents the equity to be given. For example Y Combinator takes 7% of equity,  $1/(1-0,07) = 1,07526$ . Thus according to Graham it makes sense to give away 7% if the start-up believes it benefits more than 7,526% from the investor, in this case from accelerator program. The equation is of course simplification of complicated things but it can be useful starting point for cost-benefit analysis introduced in theoretical framework. Giving out equity is also a way to guarantee that the program is incentivized to help as much as it can because it benefits more if the valuation of start-up increases.

Table 6 shows the cost of participation in the programs that were analyzed. FoundersSpace and US MAC are not seed-accelerators but more like hybrid programs, they do not disclose how much it costs for a start-up to join. FoundersSpace does take an equity stake of 6% or less, the exact amount is negotiable, but they do not provide funding. US MAC on the other hand, does not take equity at all but there is no mention of other costs on the website.

For seed-accelerators it is a standard practice to use either direct investment or convertible note to structure their investments, but the cost of participation is always certain percentage of equity and a tuition fee. All three seed-accelerators that were analyzed use convertible note in offering funding to the start-ups. In case of Alchemist Accelerator it is optional whether the start-up accepts the funding or not, but it can be used to cover the participation fees. SV Catalyst uses “either direct investment or convertible note” and Plug-and-Play accelerator uses different methods in different programs.

Convertible note is a form of short-term debt financing used mostly in early stage seed investments. By using “note” the investor loans the start-up a certain amount to be converted into equity at a later financing round. The benefit for investor is that by structuring the investment as a note, the valuation of investment is postponed and determined at a later investment round. Depending the clauses of the note such as discount, valuation cap, interest and maturity, the investor usually benefits from the use of note when the valuation is determined. (Seedinvest)

Table 6. The cost of accelerator programs.

	<b>Founders Space</b> <sup>(i+a)</sup>	<b>US MAC</b> <sup>(i+a)</sup>	<b>Plug and Play</b> <sup>(s-a)</sup>	<b>Alchemist</b> <sup>(s-a)</sup>	<b>SV Catalyst</b> <sup>(s-a)</sup>
<b>Cost of program</b>	n.a.	n.a	*12,000–18,000 €	1,000€/month/founder	8,000 – 12,000\$/month
<b>Equity stake</b>	< 6%, can be negotiated	-	+/- 5%	+/- 5 %	+/- 5%
<b>Seed funding (conv. note)</b>	-	-	10,000 – 150,000\$	Avg. 28,000\$ after tuition fee deducted	100,000\$
<b><i>i+a: both incubator and accelerator, s-a: seed-accelerator</i></b>					

Witrafı should be aware that at least seed-accelerator programs often want to have a right to participate in further investment rounds. Also, the use of convertible notes has some disadvantages such as the complex clauses and the categorization as debt. Y Combinator for example no longer uses convertible notes, instead it uses something similar it calls "SAFE" or simple agreement for future equity which it calls fairer for both parties. (Y Combinator 2016) Additionally Witrafı should take into account that the programs require that there is minimum of two founders who participate, which would increase the costs internationalization. On the other hand, it is possible to apply for Tekes internationalization funding to cover at least some of the costs of the participation in incubator and accelerator programs.

Joining a program could improve Witrafı's chances in the U.S. market entry. It could advance the development of Witrafı's business model and also speed up the access to customers. Joining would most certainly provide access to a network of investors and corporate early adopters. Most programs have a demo day, a sort of pitching competition, where start-ups have a chance to present their business model to potential investors and clients. On top of that, the better known programs are big brands in Silicon Valley and have very strong alumni networks that embrace the "what can I do for you" culture.

However, participation has also several downsides in addition to costs. There has been some criticism that many of the programs are essentially "start-up 101s", or "pitching coaches" and can offer little value to the more experienced founders. The programs are also good at advertising and saying things like "we do things differently", but apart from the top ranking programs, there is little evidence to back those claims. Furthermore, the programs have highly competitive application processes and getting accepted to the top programs is close to impossible. Moreover, the program needs to be a good fit to the applying start-up's industry so that the mentors and possible contacts are useful.

Ian Chaston has additionally criticized start-up 'training schemes' for justifying their program benefits with the high number of start-up failures. He believes that nothing good comes out of advertising with the statistics, on the contrary it can reduce people's self-confidence. Also, he points out that the high number of start-up failures is often wrongly linked with business failure when in reality the high number can be partly explained with the founder simply deciding to enter employment, retire or sell the business. (Chaston, 2010, 58)

### 6.6.3 Co-working spaces

Co-working space is a membership-based communal workspace used by people from different organizations (Spreitzer, Bacevice & Garret 2015). Isenberg (2015) classifies co-working spaces as a support factor of start-up ecosystem. For start-ups co-working spaces are a cost effective way to solve office space issues, and also provides them with many direct and indirect benefits. Co-working space tenants often have complimentary office supplies and access to rooms where they can organize meetings. One of the biggest pull-factors of co-working spaces is the other co-workers. Having a group of likeminded individuals and/or organizations sharing a space can lead to new contacts and both formal and informal partnering opportunities.

Spinuzzi (2012) who studied co-working spaces in Austin, Texas found out that the definition of co-working space varies depending from who it is asked. According to him from proprietors' point of view it makes sense to differentiate, but he was able to identify two types of co-workers. Those who wanted to work in parallel and those who wanted to work cooperatively. Parallel co-workers wanted to interact with other co-workers socially and build neighbourly relation, but the motivation for co-working was to have a professional setting for meeting customers. Cooperative co-workers on the other hand wanted to establish a working trust with other co-workers that could potentially lead to formal partnering opportunities. Cooperative co-workers were more often freelancer and entrepreneurial type and meeting clients was less important for them. (Spinuzzi 2012, 17)

The Bay Area is a location of multiple co-working facilities some of which are introduced below. It needs to be said that many others had to be left out due to space constraints. Many Bay Area co-working spaces are exclusively targeted towards tech start-ups, freelancers and other small businesses. The bigger co-working spaces actively organize events, invite lecturers and offer other additional perks to their members. Witrafi could use co-working spaces in internationalization as an alternative to incubator and accelerator programs, although it must be stressed that co-working spaces have different rules and the services are not as extensive. Also, using co-working space does not guarantee access to investors and corporate customers. Strauss (2013) however writes in Forbes article that co-working spaces too, are compelling network venues for lawyers, accountants, and advisors.

## **RocketSpace**

RocketSpace is a highly rated co-working space for tech start-ups. RocketSpace campus is located in downtown San Francisco which is not an ideal location for Witrafi. Nevertheless, RocketSpace is so highly rated that the location might be worth a sacrifice. The alumni network includes start-ups such as Supercell, Spotify and Uber. RocketSpace advertises that they have 85 corporate partners that are looking for new start-ups to work with and on average 1.5 start-ups/month co-working there secure funding. The site also regularly hosts events and training sessions for members.

Finnish AppGyver joined RocketSpace and in featured article on Tekes website their CEO praises the amenities and services provided by RocketSpace. According to AppGyver RocketSpace employees and founders “know everyone” and are willing to introduce AppGyver to new contacts, which AppGyver CEO Marko Lehtimäki has found to be particularly valuable. The same article mentions that there are approximately 130 start-ups in RocketSpace. (Tekes 2016h)

Membership options (require applying):

- Private office space for teams of 2+: 1,050\$/month
- Dedicated desk for 1+ person teams: 850\$/month
- Drop in Desk for one: 300\$/month

(RocketSpace 2016)

## **WeWork**

WeWork is a co-working space service provider with a country wide network of office buildings. In the Bay Area WeWork has five offices in San Francisco. The biggest benefit of joining WeWork is that their membership plans give access to offices in many cities from New York to San Francisco and there is a wide variety of plans from which to choose. Like in the case of RocketSpace, the location is not ideal for Witrafi, but on the other hand Witrafi could benefit from the access to working space in other location than in Bay Area.

Finnish company Audiodraft has been a member in WeWork and was featured on Tekes website. According to the article Audiodraft has been using WeWork offices as a base for creating sales and networks in the Bay Area. The website article notes that WeWork's San Francisco offices have been criticized for lack of events but the access to multiple locations receives praise. (Tekes 2016i)

Membership options:

- Commons Starter \$45/month, a day of workspace or 1 hour of conference room, access to 28 locations. Possibility for additional workspace for fee
- Commons Unlimited \$350/month, unlimited access to workspace and 2 hours of conference room, access to 28 locations, business address with mailing service
- Dedicated Desk \$450/month, personal desk for team, 12 hours of conference room, 24/7 access, all locations, business address with mail service
- Dedicated Office \$700-950/month/person in San Francisco, all amenities (WeWork 2016)

### **Nordic Innovation House**

Nordic Innovation House is a co-working space and resource center for Nordic start-ups located in Palo Alto. It is co-funded by Nordic Governments and trade promotion organizations, for example Team Finland is involved in it. For Witrafi Nordic Innovation House would offer many advantages over some other co-working spaces but on the other hand, it is comparatively small in size which can mean less events and other amenities.

Bernascoli, Dibiaggio & Ferrary (2006, 108-109) researched how social links of French ethnic community work in Silicon Valley and found that they have an economic impact. Barnascoli & al. found that the non-economic informal links gave French start-ups almost automatically access to French investors operating in Silicon Valley. This was possible because the way how venture capitalists work, they need someone who they deem reliable to recommend the start-ups to them, and informal ethnic networks are a natural way of doing that. (Bernascoli & al. 2006, 109)

Bernascoli & al. also found that the activities and gatherings of ethnic social networks are a way to obtain advice and circulate information for start-ups. However the effectiveness of ethnic networks is directly linked to network theory's points about complementing one another and developing acceptable positions relative to others in the network. Nordic Innovation House is an interesting concept because any one Nordic country probably does not have a sufficient enough number of network actors and skills in Silicon Valley, but by combining the forces Nordic Innovation House can increase the effectiveness of network.

Witrafi fulfills the conditions of joining Nordic Innovation House, as it is a Nordic start-up and operates in tech-industry. According to the website the cost of desk is \$1000/month



(25% less for SMEs), so the price is a tad more expensive than what other co-working spaces charge, but on the other hand, in addition to the co-working space and good location Witrafi gains access to potentially invaluable social network.

#### **6.6.4 Virtual offices**

The concept of virtual office was first mentioned in 5.4.1 where Amcham was introduced. The authors learned from both Klyszeiko and Suomela interviews that several Finnish start-ups have used virtual offices in the U.S. market entry. Investopedia defines virtual office as a business location that only exists in cyber-space. Virtual Office service providers offer “tenants” a real physical address and telephone answering services to give potential customers the appearance that a company has a market presence in certain location. Some service providers can also rent “real” conference room space where business meetings can be organized. (Investopedia 2016e)

For Witrafi a virtual office could be a cheap way to establish some market presence and increase potential U.S. partners’ confidence in Witrafi. According to Suomela (interview) virtual offices are useful only to a certain extent because in the U.S. gaining trust in business relationships may take two to three meetings and meetings are often requested on a short notice. Use of virtual office may thus lead to false ideas if the “tenant” can’t respond to meeting requests. Additionally, Klyszeiko (interview) pointed out that the location of virtual office is important. He told the author anecdotally that some Finnish start-ups have previously had virtual office address in bad areas of Bay Area which hurt their business.

Silicon Valley and the Bay Area have numerous virtual office service providers and many of the co-working spaces such as Nordic Innovation House (NIH) also offer virtual office services. The price range varies but most of the simple plans including mailing services start from around \$100/month. Telephone answering increases the costs and Regus for example charges \$229 per month for telephone answering service. NIH charges \$1320 annually for virtual office and The Office of Silicon Valley offers plans starting from \$100/month plus \$50 set-up fee.

#### **6.6.5 Corporate venturing, programs and competitions**

In theoretical framework and in 5.1.3 where Silicon Valley environment was discussed, the concepts of corporate venturing was introduced and it was also mentioned that Silicon Valley is known for its many success stories. For Witrafi the existing success stories are not only role models, but also potential partners. Many successful entrepreneurs become investors and mentors after their exit and as was introduced in the theoretical framework,

successful start-ups can start acquiring and investing into other start-ups once they have sufficient funds to do so.

CB Insights (2015b, 3) which publishes an annual global report about exits of private tech companies reported that in 2014 the number of tech exits grew by 58% when compared to previous year. Most of the exits (2,886) were through mergers & acquisitions and only 79 through initial public offerings (2015b, 3). Bulk (73%) of the tech companies had not raised institutional funding prior to the exit (2015b, 7) and 44% of those that had, exited in early stages after seed or Series A (2015b, 14). When it comes to valuation at the exit time CB Insights (2015b, 6) found that although the number of unicorn (valued at over \$1 billion) exits nearly doubled, they still represented less than 1,1% of total number of exits, whereas most exits were by considerably smaller firms (< \$200 million).

Although the figures presented in the report are not limited to Silicon Valley, the report does mention that the U.S. leads in the number of exits (2015b, 8) and that in the U.S. California sees more exits than the next five markets combined (2015b, 10). When these numbers are added to the fact that a number of Finnish companies has found exit in Silicon Valley (p.53 of this report) and that by sectors internet (~50%) and mobile & telecommunications (~20%) are leading in tech exits (CB insights 2015b, 11), an exit seems like one plausible outcome of internationalization for Witrafi.

It is well known that corporations such as Alphabet Inc. (the parent of Google), Apple, IBM, Cisco, HP, Facebook and many others are active in corporate venturing and monitor start-ups they could invest in or buy. According to Dolbec in Ernst&Young Globalizing Venture Capital report (2011, 40) the importance of Silicon Valley as a corporate venturing location can be seen in the fact that three stages of corporate venturing can be recognized; 1) the corporation begins by investing in someone else's VC fund, 2) the corporation establishes an office in Silicon Valley and sends some of its employees there, 3) the corporation hires Silicon Valley people to manage the office.

The benefits of corporate venturing for corporations are clear, on one hand "tech scouting" gives them access to new technologies and talent while on the other, it is a pre-emptive strategy to avoid competition. For start-ups corporate venturing is a tempting opportunity because it gives them access to distribution channels, access to both financial and technological support as well as access to resources otherwise unavailable. Achieving growth is a common goal for both parties. (Barrow & al. 2005, 223)

For Witrafi partnering with a suitable larger company from a relevant business field could provide access to infrastructure and depending on the depth of the relationship, funding or even an exit. In internationalization Witrafi could use corporate venturing in couple of ways. Corporate based venture capital funds are one option, but in addition the corporate venture arms of large companies organize competitions and have their own accelerator programs. The larger companies also have so called “tech scouts” that attend start-up meetings and other start-up gatherings, such as previously discussed incubator and accelerator programs.

In much the same way as with other investors, accessing “corporate ventures” can be difficult in competitive environment such as Silicon Valley. As is case with many other partnering opportunities tech scouts often want referrals and the start-up needs to be recommended by someone who they trust. Meyer & Crane (2014, 330) propose that in addition to different events, University MBA-programs might be a good place from where a start-up could look for useful contacts. Meyer & Crane also point out that when working with corporate ventures start-up should be careful with Non-disclosure agreements and other contracts, as some may try to use them for their own advantage.

Corporate backed start-up competitions are not entirely new for Witrafi as it has previously participated in Verizon’s Powerful Answers 2014 competition in San Francisco where it succeeded well (Siitonen interview). However that competition as of now has not led to Witrafi’s internationalization. Attending conferences and tech exhibitions has been traditionally a way for businesses to make new contacts, but Klyszeiko (interview) said that they are becoming less and less important in the U.S. as a business networking venues. Corporate accelerator programs are similar to seed-accelerators and joining one could be beneficial. However, Witrafi should carefully analyze the rules of program before joining. Corporate-Accelerator DB has a global list of different corporate accelerators, from Witrafi’s field of business at least Cisco Systems has an accelerator program in San Jose.

#### **6.6.6 Informal networks**

The authors have previously introduced alternative ways how and where to find prospective partners in the Bay Area. Likewise the importance of informal networks and mentors has been stressed both in the theoretical framework as well as in discussion. However, in case Witrafi is unable to hire U.S. employees, who could provide Witrafi with their own informal networks, and decides against joining incubator or accelerator program it has to be more active in networking. There are several ways how to go about it.

In Silicon Valley ecosystem there is an abundance of experienced serial entrepreneurs and other professionals who are willing to share their knowledge. Finding suitable contacts might take time and effort but for Witrafi a natural place to start is the ethnic social links as was stated while discussing Nordic Innovation House. In today's digital era a good place to start the search is LinkedIn and other similar social network sites. However, because in Silicon Valley email and other electronic contacts are not preferred means of communication, knowledge of where to go can increase the efficiency of networking. In addition to co-working spaces, Team Finland, conferences and competitions there are some organizations and individuals that could be beneficial for Witrafi (in networking) when entering the U.S. market.

Witrafi should start the networking already in Finland so that enough contacts exist prior to the market entry efforts. In Finland the annual Slush conference is the biggest start-up gathering and attracts visitors from around the world. Start-up Sauna of Aalto Entrepreneurial Society is very active in organizing presentations and other similar events year round and also has contacts in the Bay Area. By attending different events Witrafi could increase the probability of meeting well-known Silicon Valley Finns such as Mårten Mickos, who has publicly spoken about the importance of helping fellow entrepreneurs (HS 2015), and Pekka Pärnänen.

Meetup Silicon Valley is another useful networking channel. It lists Silicon Valley related meetups around the world and of course in Silicon Valley. One of the meetings it lists is Silicon Viking's Helsinki meetup. (Meetup 2016). Silicon Vikings is a Silicon Valley based +30,000 strong network of Nordic/Baltic start-up ecosystem actors. The purpose of the network is to build a borderless community and share the best practices to support Nordic and Baltic entrepreneurs. Silicon Vikings organizes events, shares resources and connects the different ecosystem actors together. For Witrafi Silicon Vikings is one possible source of resources for internationalization. (Silicon Vikings 2016)

### **6.7 What are the costs attached to best partnering opportunities?**

Based on expert interviews and previously introduced research authors determined that there exists alternative ways how Witrafi could approach U.S. market entry. For that reason different scenarios are introduced using the previously identified collaborative options. Authors would like to point out that the scenarios and the budgeting presented are short-term, as per the research demarcation. Also, some of the costs presented in scenarios that demand more commitment are non-recurring in nature, meaning that if the budgeting was to continue for a longer time period some of the costs would settle.

### **6.7.1 Pragmatic**

The pragmatic approach, when applied to a view towards internationalization is very much in accordance to the definition of the word, which is to be practical as opposed to idealistic (Merriam-Webster 2016). In Witrafi's case this would mean to not use available resources towards a US expansion. There is no separate budget for this option, and could be reduced to a yearly excursion to the Silicon Valley for example as a maximum. Witrafi continues to follow Team Finland events and attend them if they have time and wish to make the effort. Witrafi should keep its eyes open however, and if a clear opportunity arises through e.g. Team Finland activities or similar (Witrafi is in the MaaS program of Team Finland), then Witrafi can move to a more resource-intensive scenario.

This is the lightest option when considering company resources, and there are a few good sides to this approach. No special budgeting should be applied in this scenario, as its activities are a part of normal company operations. It does take the least time, effort and finance to exercise. It is also the least risky; however, considering a possible reward of e.g. Series A financing, the opportunity cost of this approach is extremely high, as the rewards are also the smallest, and it would be nearly impossible to lure venture capital investments to the company with this low-intensity approach to internationalization. The common phrase "nothing ventured, nothing gained" describes this approach quite well in one sentence.

### **6.7.2 Serendipity (internationalization by chance)**

This approach can be described as internationalizing by chance; by definition, Serendipity is "luck that takes the form of finding valuable or pleasant things that are not looked for", as described by the Merriam-Webster dictionary (2016). However, certain steps may be taken in order to make that chance more likely. This option requires more resources than the previous option, as is the first approach with a budget.

While it may be difficult to differentiate between the Pragmatic approach and Serendipity approach, Pragmatic becomes Serendipity for example in the event of Witrafi applying for a US startup competition and getting accepted in it, if a stakeholder from the US, for example an investor reaches out to them and it is decided that they should pursue the lead. All things considered, Serendipity entails more efforts in applying for competitions, and attending more events with the clear goal of searching for internationalization partners. Witrafi is, and has been in this approach for a while, and pursued some lucky strikes; in 2014, they were accepted into the top 10 finalists in the Verizon Powerful Answers

Awards. They have also attended various trade fairs abroad, searching for customers and partners.

Team Finland is a marketplace for serendipity. They offer many different kinds of opportunities: sales, investments and networking, just as examples. Witrafi should join their events for possible leads, in addition to other such events as well. They should also apply to accelerator programs and competitions where getting in is a prize entailing possible funding and advice. Getting accepted to one is a great chance to gain publicity and other benefits through the program or competition itself. If Witrafi visits an expo or conference, they should seek out partners and opportunities to pursue; indeed, these events might also take place in the Silicon Valley.

This approach would also include trips to Silicon Valley: one to three trips annually. Their purpose would be to network, vet the market and gain advice from the best experts in the startup world. Hence, this approach requires some budgeting, which relies heavily on the amount of trips taken. The trips would likely last one to two weeks, and they would be booked full of meetings and events. Witrafi has embarked on such trips in 2014 (in conjunction with the Verizon competition) and in 2015, when they were a part of Haaga-Helia UAS delegation for the internationalization of Startup School, while running their own agenda in parallel. Both trips had a clear purpose beforehand, and a full schedule in the Bay Area filled up with meetings and networking. These trips are very useful, but connections made then are difficult to keep up. Keeping up appearances would require repetitive meetings, and other than the main purpose of the trip, be it a competition or other set purpose, is in every case the main accomplishment. For keeping up the connections, multiple trips or a longer stay would be required, and this would mean moving into the next approach. For the same aim, in this approach, consideration should be placed on whether it would be beneficial to start with a virtual office in the US. It would highly increase the chance of credibility towards arising US opportunities, and also serve as a headquarters for the trips themselves. While there, Witrafi should look into incubators and meet Venture Capitalists. If these don't suite Witrafi's purpose otherwise, then they certainly will provide extremely valuable feedback for them.

This approach one to multiple trips to Silicon Valley. The following is a description of possible costs related to such a trip. It should be noted that during the course of a year 1-3 trips could be scheduled. The costs stipulated in table 5 are for a delegation of two persons from Witrafi, staying from Saturday till Sunday (8 nights). Other cost items are renting the vehicle, daily allowance and general expenses. Expenses are left rather large, as the trip might be for example because of a conference, in which case tickets need to be

purchased. It also includes gas, lunches, dinners etc. that the company might have to pay for while promoting themselves. In addition to marketing materials, samples or anything to that effect. These costs may differ between trips, therefore a large amount is stated. For example, the ESTA-documentation required for travel into the USA is a one-time cost, valid for three years.

As this approach requires funding, mainly for the trips abroad, there should be a budget in place. It is quite volatile depending on how many trips should be done, but sets itself in certain boundaries; which if exceeded, would likely be due to moving to the next most intensive approach. Benchmarking for estimated costs in table 7 were gathered from Momondo (2016), Hotels.com (2016), rentalcars.com (2016) and Veronmaksajat (2016):

Table 7. Costs of visiting Silicon Valley on business.

Item	Cost
Vehicle rent	300
Hotel	1500
Flights	2000
Expenses	2000
Daily allowance	1072
<b>Total</b>	<b>6872</b>

The budget is quite light, as mainly business trips would be included. Such efforts fit well with nearly all suitable internationalization funding schemes for Witrafi. In question would be Tekes YIC, TEM, ELY and Finnvera funding. It is also likely that these funding options would not be used solely for expansion into the Silicon Valley, because all these funding amounts greatly exceed the costs of the Serendipity approach. In other words, Silicon Valley would be a destination among others for Witrafi's budding internationalization; other alternatives may be pursued less or more intensely.

### 6.7.3 Incremental

In the Incremental approach considerably more effort is made into expanding to the Silicon Valley than is made in the Serendipity approach. Still, what is chased is a chance; in this approach, hard work is placed upon uncovering and securing that, be it an investor or other partner, for example. However, the efforts are quite similar by type, their effectiveness is bolstered through more resources being allocated to them.

In addition to continuing attendance of Team Finland events, Witrafi is recommended to join Amcham Finland, the prime networking organization for Finnish companies seeking to enter the US market in general. They have recently opened an office in New York, further aiding their purpose. With these two networking organizations working for them, Witrafi should be able to greatly increase the amount of opportunities presented to them.

In the approach, more presence in Silicon Valley is required. This is the main differentiator of the Incremental approach versus the Serendipity approach, in addition to paying for services from Amcham, which already shows commitment towards internationalization. Witrafi needs headquarters for the visits, and a US phone number and address to maintain credibility in the region. A great place for Witrafi's Silicon Valley office (a virtual office) is the Nordic Innovation House, right next to the Team Finland office and in the middle of Palo Alto, the place to be for any startup. While on-site and elsewhere, investigation should be carried out to legal implications of Witrafi entering the market. A lawyer is needed when pursuing investments and many other benefits of the American market, so as to not make poor deals and add an outsider to vet the opportunities and their implications. Time-wise, there would be around 1-3 visits, each lasting around 2 weeks to 1 month (time between visits around 1 month). The duration is needed to continue started business relationships and gather all the knowledge and meet all the relevant parties Witrafi can. In business in the Silicon Valley, after the first meeting, a follow-up should be scheduled as soon as possible. In the serendipity approach, such meetings are not possible.

In addition to the budgeting in the serendipity approach, this approach would add naturally more costs through extended stays, but also the Visa process comes into question. Lodging is likely to be provided by AirBnB. Below in table 8 is a budget for two one-month trips.

Table 8. Expenses for incremental scenario.

<b>Expenses</b>	
Virtual office	1200
<b>TOTAL BUILDINGS/REAL ESTATE \$</b>	<b>1200</b>
<b>administrative expenses</b>	
Legal and Accounting Fees	3000
Salaries and Wages	6000
Office Supplies	500
<b>TOTAL ADMINISTRATIVE EXPENSES \$</b>	<b>9500</b>



<b>advertising/promotional expenses</b>	
Advertising	1000
Printing	1000
Lodging	4000
Vehicle	2250
Flights	4000
Meals & Entertainment	1000
Other expenses	1500
<b>TOTAL ADVERTISING/PROMOTIONAL EXPENSES \$</b>	<b>14750</b>
<b>2 visit total</b>	<b>25450</b>

This is a more effective approach for entering Silicon Valley than serendipity. It costs more, but the chance of for example an investment and in any case the broadening of Witrafi's knowledge base is bolstered through a still small, but increasingly meaningful step into internationalization. At least one visit for one month is recommended to probe the full potential of Silicon Valley. Estimated costs for this venture is 12,725 €. The additional trips would be useful in the case that Witrafi gains good results on the first trip and chooses to pursue business opportunities in the Silicon Valley further.

#### **6.7.4 Accelerator program scenario**

Based on the research and data collection authors believe that for Witrafi joining Silicon Valley based incubator or accelerator program could be one possible option in internationalization. Compared to previously introduced scenarios this scenario would require more resources and a higher level of commitment from Witrafi's part because the programs generally require that at least two founders attend. Additionally the program length is usually from three to six months, although shorter programs exist as well. On the other hand, the higher level of commitment could lead to faster, more controlled market entry and could provide Witrafi with the means to develop networks otherwise difficult to attain.

The funding for this scenario would likely come from three sources; Tekes, Witrafi (other) and seed provided by the program to be participated. A start-up planning to attend incubator or accelerator program is qualified to apply for Tekes funding for "planning international growth", which if approved, means that Tekes covers up to 75% of the costs of participation or maximum of 50,000€. However, Tekes requires that the applying start-up has equivalent of 50% of required funding from other sources and it pays 60% of the grant up

front and the rest later. To qualify to begin with the applicant has to strictly follow Tekes guidelines and reporting procedures.

It is difficult to estimate the size of funding offered by the program as each program has their own practices. The authors are hesitant to use any one program as an example because 1) the probability of getting accepted to the first or second choice is low and 2) the terms & conditions vary so much between the programs that using one to represent all would diminish the usefulness of this budgeting exercise. However, in this scenario seed accelerator is used as a reference for discussion because incubators and corporate accelerators have similar costs but don't offer funding. Authors would like to point out that although seed accelerators may provide seed up to \$120,000, the average lies somewhere between \$18,000 and \$25,000. For this scenario it is presumed that Witrafi would receive a net of \$25,000 or when converted to euros (using 1\$ = 0.9€ exchange rate) approximately 22,727€. A detailed analysis of different program benefits has been previously introduced hence this scenario focuses on costs. Table 9 presents the sources and use of funds statement.

The program fee is a single digit in equity, which is not included in budgeting, the issue was likewise discussed previously. Some programs such as Blackbox.vc do have other type of tuition fee models, but the industry standard is to pay participation in equity. The extent of this scenario is three months which is typical length of seed accelerator programs. Even if the program was to be shorter, the purpose is to look what are the costs for Witrafi to send two employees for three months to the Bay Area program. This scenario presumes that the program provides Witrafi with co-working space, as is common practice, so there is no fixed office rent costs included. Also, incorporating a U.S. subsidiary is seen as a pre-condition for this scenario.

Witrafi would have to pay for employee housing during the program as the programs themselves don't provide housing. Some programs do offer advice on the housing market and might be able to provide contacts and access to better deals than what the market can offer. In the environment analysis it was mentioned that housing market is one of the biggest issues in the Bay Area. Affordable housing options are non-existent and the general rule is that you get less, for higher price than elsewhere. For this scenario different websites were compared and it seems that housing for two with a simple setup and a reasonable location would cost Witrafi around 2,100 €/month including fees, when Airbnb or equivalent is used.

Table 9. The sources and use of funds statement for seed-accelerator scenario.

Sources and use of funds	3 months (€)
<b>Funding</b>	
Tekes grant (max)	50,000
60% of Tekes grant	30,000
Seed from program	22,727
<b>Total funds available in the beginning</b>	<b>52,727</b>
Total funds required	57,210
<b>Witrafı's portion/other</b>	<b>4,483</b>
<b>Expenses</b>	
Office space	-
Other	-
<b>TOTAL BUILDINGS/REAL ESTATE €</b>	<b>-</b>
<b>Capital equipment list</b>	
Equipment and technology	500
Other	5,000
<b>TOTAL CAPITAL EQUIPMENT €</b>	<b>5,500</b>
<b>Administrative and general expenses</b>	
Corporate Fees, Permits and Taxes	150
Employee housing and Utility Deposits	6,300
Legal and Accounting Fees	4,600
Insurance	800
Salaries and Wages	12,000
Payroll Taxes	2,640
Benefits	3,600
Office Supplies	100
Other (consulting, visas)	3,320
<b>TOTAL ADMINISTRATIVE EXPENSES €</b>	<b>33,510</b>
<b>Advertising/promotional expenses</b>	
Advertising	-
Website Development	-
Printing, promotional materials	500
Travel	5,500
Meals & Entertainment	6,200
Other/Additional expenses	6,000
<b>TOTAL PROMOTIONAL EXPENSES €</b>	<b>18,200</b>
<b>TOTAL EXPENSES €</b>	<b>57,210</b>

Transportation is one of the major expenses in the Bay Area. Witrafı would have to be as mobile as possible and Kriman (email interview) proposed buying a used vehicle for transportation purposes. For that reason 5,000€ is budgeted for capital equipment. It was determined that for three month period Witrafı would not need to buy any major equipment, and the existing laptops and other equipment can be used. Regardless 500€ was budgeted to cover possible extraordinary expenses.

Significant cost for this scenario would come from legal fees and incorporation of U.S. subsidiary. The U.S. subsidiary would likely be “inactive” in the beginning with no-income and employees but some administrative expenses such as registering to do business in California would still have to be paid. Although it is not expensive to incorporate Delaware Corporation, it can be done for as little as \$500, using a good lawyer increases that cost to couple of thousands. Similarly an accountant may be needed in the set-up process. The legal fees portion of expenses is reduced by the fact that Witrafi would not hire any new employees during the three month period and it is presumed that no major contracts would be signed. The estimated figure of 4,600€ comes from costs of incorporating, accountant fees and less than five hours of professional legal counselling. It is presumed that the program Witrafi attends provides some advice on simpler legal matters.

The insurance portion of expenses covers the costs of insuring the vehicle and travel and expatriate insurances for two employees for three months. For this scenario Witrafi would not have to buy any significant property so the cost of insurance is lower. Also, in case Witrafi decides that normal travel insurance is adequate, the insurance expenses drop by approximately 200€. The expatriate insurance however provides wider coverage, and because in the U.S. healthcare costs and liability issues are more complicated than in Finland, it might be worth taking the more expensive option. According to a quote from a Finnish insurance company, the cost of expatriate insurance is around 150€ for a three month period.

The salaries portion assumes that the two employees attending will be paid a net of 2,000€ a month. The payroll taxes were calculated using a calculator from palkka.fi and are the minimum employer side costs. The actual figure is likely higher, but for Witrafi it should be easy to calculate the actual cost using the existing salaries as a reference. The benefits part assumes that Witrafi offers both employees 500€ monthly relocation allowance plus 100€ per month to cover mobile-phone plan.

Witrafi will not need to purchase any significant office supplies for the period of three months, but 100€ allocated can be used to cover other similar costs such as postage costs. The category “other” includes the costs of acquiring B1-visas for both employees and €1000 to be used for other business consultations per month. However it is assumed that Witrafi saves significantly in consultation costs by attending the program.

Promotional expenses form the last category of expenses. It is expected that in this scenario Witrafi will concentrate on attending the program and business meetings, so tradi-

tional marketing expenses such as advertising are lower. 500€ is allocated to cover printing and some basic promotional material expenses. Travel portion of expenses could have been included together with “general” expenses, but it is seen as including the travel to and from different events. The authors assume that Witrafi can purchase return flights for two from Helsinki to San Francisco for around €1,600, which is significantly higher than low-season but somewhat lower than the flights cost during more popular traveling season. The traveling expenses also include the costs of vehicle usage based on American Automotive Associations estimations and the use of public transportation such as cabs and Uber from a period of three months.

Meals and entertainment expenses allocate 400€ a week for business dinners/other similar activities and 1,000€ for entertainment for three months for two employees. The last promotional expense category is “other” expenses where 6,000€ is allocated for expenses of attending business conferences, start-up gatherings and other networking events. This assumes that one employee uses a maximum of 1,000€ per month for such events, which can be low figure considering that conference fees can be anything between 400-1500€ per employee. It is however assumed that the program where Witrafi is participating organizes similar events at no additional cost.

The authors estimate that the total costs for two employees to attend a Bay Area program for a period of three is around 57,410€. This estimation is lower than what one author of this research has heard previously. While visiting Silicon Valley in 2015 a figure of \$25,000 for two per month was given, which would mean approximately 68,000€ when converted. However, the scenario presented here is based on assumption that Witrafi would significantly benefit from attending an accelerator program. When assessing whether this type of scenario is feasible, Witrafi also has to take into account the loss of equity. Although this scenario is based on period of three months, it also presumed that at least one person from Witrafi would stay in the Bay Area after the conclusion of program, B1 visa is valid for six months and can be extended. After the program Witrafi would have to start paying for co-working space and the need for consultation would increase together with other expenses. When it comes to funding, the scenario seems feasible assuming that Tekes grants funding and the program provides seed funding.

#### **6.7.5 Hierarchical entry**

In addition to the previous scenarios Witrafi has the option of using hierarchical entry mode in the market entry. Hierarchical entry as introduced in theoretical framework can be thought either as an extension of exporting or forward vertical FDI, depending on the level of commitment. The hierarchical entry is popular among start-ups due to its flexibility and

the maximum amount of control it provides. However the disadvantage is that more resources are needed and the start-up has to endure higher uncertainty as it cannot rely on networks and support services provided by program as in previous scenario.

Assuming that when using this scenario Witrafi does not have wide existing networks in Silicon Valley, it would have to commit more resources to finding potential investors, partners and early adopters to test and fund its business model and expansion. However this scenario does not require that a team of two or more employees is sent. Witrafi could start by sending a company representative to do networking, raise funding and search partners. Suomela (interview) reminded that sending an employee abroad is not effortless, as Witrafi would first have to select who to send and that depends on many factors such as family and life situation. Siitonen (interview) noted that Witrafi would also have to hire a new employee to take care of the work of that person who travels. Incorporating a U.S. subsidiary is not mandatory in the beginning, Klyszeiko (interview) suggested only incorporating when absolutely necessary. In the longer term it is needed and hence included in the costs of this scenario. The costs of this scenario are calculated only for the first three months, after which Witrafi should have a better idea whether to commit further resources for market entry or to retreat. It is optimistic to think that three months would lead to rapid internationalization, although some degree of advancement is possible. Referring to Siitonen's visit to Silicon Valley in October 2015 (appendices), three months was quoted as a minimum time needed.

The funding of this scenario is more complicated than for seed-accelerator scenario. Witrafi would be eligible for Tekes grant similarly to other scenarios because this scenario would fulfil the conditions of "internationalization planning", but on the other hand the costs are not significantly lower than in seed-accelerator scenario and there is no financial support by a program. This would mean that Witrafi has to find alternative ways how to finance the portion of costs that Tekes grant does not cover. However in hierarchical entry Witrafi would not have to give out equity to a program in the beginning which could be a significant saving longer-term in case Witrafi's valuation increases. It is worth mentioning that to stay competitive in Silicon Valley Witrafi might nevertheless have to give out equity when hiring U.S. employees.

Table 10. The sources and use of funds statement for hierarchical entry scenario.

Sources and use of funds	3 months (
<b>Funding</b>	
Tekes grant (max)	50,000
60% of Tekes grant	30,000
<b>Total funds available</b>	<b>30,000</b>
Total funds required	49,080
<b>Needed from Witrafi/other sources</b>	<b>19,080</b>
<b>Expenses</b>	
Office space	2,250
Other	1,500
<b>TOTAL BUILDINGS/REAL ESTATE €</b>	<b>3,750</b>
<b>Capital equipment list</b>	
Equipment and technology	500
Other	5,000
<b>TOTAL CAPITAL EQUIPMENT €</b>	<b>5,500</b>
<b>Administrative and general expenses</b>	
Corporate Fees, Permits and Taxes	150
Employee housing and Utility Deposits	6,300
Legal and Accounting Fees	5,600
Insurance	600
Salaries and Wages	6,000
Payroll Taxes	1,320
Benefits	1,800
Office Supplies	300
Other, incl. consulting	4,660
<b>TOTAL ADMINISTRATIVE EXPENSES €</b>	<b>26,730</b>
<b>Advertising/promotional expenses</b>	
Advertising	-
Website Development	-
Printing/promotional materials	1,500
Travel	2,500
Meals & Entertainment	3,100
Other/Additional	6,000
<b>TOTAL PROMOTIONAL EXPENSES €</b>	<b>13,100</b>
<b>TOTAL EXPENSES €</b>	<b>49,080</b>

Witrafi would save money by having only one employee traveling but on the other hand it would have to pay for office space, still purchase a vehicle for transportation and the housing would cost the same regardless. Also, there might be a loss in opportunity as only one employee travels. Although the initial costs of this scenario are unlikely differ considerably from the previous scenario, in the worst case, the longer term costs can be significantly higher. While discussing the different accelerator type programs it was mentioned that Coppola (2014) found that some foreign start-ups had spent more than \$250,000 be-

fore any success in similar conditions as this scenario. Coppola's figure is somewhat compatible with the number (\$170,000) heard by Siitonen while visiting Silicon Valley in 2015 (appendices).

In this scenario Witrafi would rent a desk/office space from co-working space service provider such as Nordic Innovation House, which would cost 750€ for a month. The incorporating costs would be similar as in previous scenario, but it is likely that more legal advice is needed to compensate the portion of advice given by program in previous scenario, so 1000€ more is allocated. Likewise the category of other general expenses is inflated by 1500€, excluding the cost of B1 visa from additional employee. In this scenario Witrafi could try to utilize Team Finland services more than in previous scenario but as was analysed, the resources of Team Finland are limited in Silicon Valley.

Compared to accelerator program scenario the total promotional expenses are only 5,100€ lower because Witrafi would have to increase spending to find and access the partnering opportunities provided by the program. A significant loss are the access to corporate partners and demo day.



## 7 Discussion

In this chapter, the authors go through previous findings to provide recommendations for the case company and others like it. The main findings discuss what kinds of methods of internationalization there are for startups such as the case company, and how to fund such endeavours. The positive and negative implications are also discussed, in addition to how the study was conducted. Recommendations for further studies and limitations of this study are also discussed.

### 7.1 Key findings

The operating environment in Silicon Valley is highly competitive, which cannot be emphasized enough, and can be clearly seen from the environmental analyses in this research. This applies to everything: labor, funding, customer acquisition etc. It is highly likely that there are tough competitors in the area, no matter the industry or idea pursued by a startup. Careful consideration must be placed on whether the area is even worth the push, whether the startup actually has the resources to operate there and if the business logic or idea is viable there. Unless absolutely sure, the startup should not venture so far across the world, despite all the good reasons to go there.

As has been established, Witrafi has passed the phase where they would be viable to angel investments. They have also exhausted the amount of 'de minimis' funding for the time being, however, this may change in the near future, at least in 2018 when some of their 'de minimis' funding has cycled deeming them eligible for more.

The found Finnish public funding alternatives are extensive, as was also supported by previous publications, such as "Ohjelmistoyritysten rahoitusopas" (guide for funding a software company) by Ahokas, M. (2012). The theory on public funding schemes is not very extensive, mainly due to large regional fluctuations and innovation funding being often categorized as a kind of subsidy. Many of them are directly or in part geared towards internationalization. This is because of two main realizations made by the government: they are aware that Finland must export increasingly more, and that we are competitive to a high extent in mainly innovations in various industries. Manufacturing itself has become highly expensive compared to other regions of the world. This trend can be clearly seen in the Finnish economy. Witrafi has also been able to successfully raise funding from several public outlets before, and as the successful relationship continues, Witrafi should be able to raise further funding as well.

Most suitable funding alternatives are Tekes YIC funding, planning for global growth funding, TEM funding and Finnvera funding. These options are the most suitable ones namely because they are not constrained by the 'de minimis' restrictions. They are also suitable for reasons of naming internationalization directly as recommended parts of the project in question (to which the funding is allocated). They are thus extremely suitable options for any of the named methods of internationalization, that is, the ones requiring additional funding (from serendipity to hierarchical entry, excluding the pragmatic approach because that option does not require funding). While it can be said that such amounts of funding are comparatively large for a country, for Finland they are a necessity to uphold competitive advantage as a nation. It can be argued, though, that this public intervention in innovation funding highly taints the types of innovations funded, and the types of companies founded.

These three options are all beneficial to startups, but Tekes YIC is the most useful in many respects. It is cost-effective, because out of project costs Tekes will reimburse 70 %, whereas TEM will only reimburse 50 % and Finnvera loans are loans, having to be paid back in the future. Tekes YIC is also heavily related to the startups development phases, and urges the company to keep a certain pace through reaching certain milestones. Planning for global growth in its non-de minimis form would give 50 % of costs as a grant.

The abundance of startup funding in the United States, and its concentration to Silicon Valley is staggering. Compared to the Nordics, seed rounds are about 17 % larger, Series A rounds are 23 % larger and Series B rounds are 123 % larger. The sheer volume of funding is also amazing, with 49.3 Billion USD worth of venture deals done in the US (of which 24.2 Billion worth in the Silicon Valley) versus deals in the Nordics amounting to only 846.4 USD. This is why many startups look into entering that region, hence the competition for the funding is extreme as well, which is again suggested by the PESTEL results. It is definitely worth it actually raising a funding round in Silicon Valley versus the Nordics, but unless the startup is well connected or well known, it might prove to be difficult and costly. It must however be noted that several parking-related startups have received funding in Silicon Valley, some to high extents and in any case funding that has been at least in seven figures.

The costs of doing this raising of funding may also prove excessive, if it requires prolonged time in Silicon Valley, a notoriously expensive place to reside in. This is clearly shown in the different internationalization options, especially the Hierarchical method, the Accelerator-based method and Incremental method. The Accelerator method may prove

extremely costly, if the chosen accelerator takes a stake of equity and the startup succeeds highly. That renders the stake given to the accelerator potentially highly valuable, and should be counted into the costs of the startup making such a move (otherwise the original owners would still own the stake). Also if the program is paid, and the acceleration does not provide sufficient results, it may prove to be a costly detour.

Major findings are presented through the proposed scenarios. The pragmatic approach entails next to no funding or effort, giving meager results. The serendipity approach has been pursued by Witrafi for a while now. It has been somewhat beneficial, through networking especially and getting to know Silicon Valley first hand, but concrete benefits, after two trips have not stretched really further than this. The opportunities do not come to the company, the company must come to them. Therefore events and other happenings to search out these opportunities should be pursued. Opportunities may come from networking with the right person, or by attending innovation competitions, for example. Team Finland events should be attended, ones which would serve this purpose. These are well known methods for startups to reach the relevant audience with their message. One to three trips in total should be made, with the purpose of networking, meeting possible partner companies and investors, in addition to attending a possible conference or competition. These are basic elements of working in a startup, just applied internationally. The trips costs are quite low, around 6000-7000 euro per trip, because of their business-trip nature.

Starting from the incremental approach, internationalization becomes much more hands-on in Silicon Valley. These entail more presence on-site. This is a key factor emphasized by the expert interviews: presence is needed to secure meetings and their follow ups. Without presence, follow-up meetings are impossible and what traction may be gained on a short trip will quickly deplete afterwards, when the presence shifts back to Finland. For presence purposes, a virtual office would be established in Silicon Valley, to show that the company has an office there and is available through it. To further support this, actual physical presence would also be added. This includes 1-3 stays in Silicon Valley, duration of at least two weeks to a month. It also significantly raises costs through living expenses there, which are among the highest in the world. The incremental approach would also bring into question using another trade-supporting agency, Amcham Finland. They are greatly able to help Finnish companies enter the US market, as it is their organizational purpose. Therefore, a one month stay would cost 12 000-13000 euro. Financing could be easily integrated into a larger internationalization project or Tekes-project. While this doubles the cost of the serendipity approach, it brings a significantly higher presence and

credibility for the company. Opportunities there are much easier to pursue through the added presence and help from Amcham.

Joining an accelerator program has been isolated as its own method, due to its total immersion into the program, which usually lasts from three to six months. These programs promise to provide everything needed to start up business in Silicon Valley. Through their extensive networks and available resources (financial and non-financial, such as various consulting services) they are able to considerably streamline a startups market entry and growth. The marketed benefits must be criticized somewhat however, as the accelerators are businesses as well, and geared towards making a profit. They will look for their own benefit, which hopefully is their customers (attending startup) as well. Care must be taken into which program to apply for. This can be confusing, as there are several seemingly similar accelerators.

Two employees would attend the accelerator, which would greatly influence the costs through living expenses, having to be paid by the company. Accelerator programs often take a portion of equity (in the single digit percentages), which can become a large portion of cost in the future, when the startup becomes valuable. Another significant addition to the commitment level of being in the US is incorporating there, which must be done for several reasons, including being able to provide the equity stake to the accelerator, but also for being able to more effectively manage operations there, and yet again increase credibility in the eyes of stakeholders. This options costs amount to 50 000- 60 000 \$, the higher expenses mainly due to salary expenses, but also for acquiring a vehicle for transport (a necessity in America) and incorporating the company in Delaware. It has to be noted that financing this option would come partially from the accelerator as well: usually a sum of 25 000 \$ is invested by the accelerator to the participating company. Other financing can come from e.g. Tekes through the Planning for global growth-program. For continuing the relationships established during the accelerator program, the case company should keep at least one member of staff in Silicon Valley; therefore towards the end of the program a B1 visa should be acquired, assuming the person in question would require one (Witrafı also has one US national on their payroll). This type of market entry holds large promise for the company, and potential for an efficient entry to Silicon Valley through the resources of the accelerator.

Hierarchical entry takes entry to Silicon Valley even further, and if this option is chosen it should be very clear that it will be of benefit to the company. This option provides the highest level of control for the company, as it is pursued (according to desired level of commitment) through forward vertical FDI or exporting. This option is popular among SME's and

startups alike as it is flexible, for example due to the absence of a set, intense accelerator program. This is double-edged sword: it demands more resources, and with more control, comes more responsibility for the company itself in addition to uncertainty of the future. A disadvantage is also that more resources are required and the start-up has to endure higher uncertainty as it cannot rely on networks and support services provided by the program as in previous scenario. Basically the benefits of working through an accelerator are taken away, and the startup has to fair on their own, through their much less extensive network and resources; thus having to spend more finances on e.g. consultation and more time taken in executing the same objectives. Of course, if the startup is able to obtain sufficient local networks through a local business partner, or some other entity proficient in Silicon Valley, then the knowledge/network gap may be effectively closed.

Contrary to the previous option, and according to expert interviews, incorporation is not absolutely required. If possible, it should be postponed as far as possible due to the extra costs and administration needs, but may shortly become a necessary step to take. One employee should stay on-site permanently, and this requires additional planning as it is a great resource commitment, and quite likely someone should be hired to replace them in Finland. According to expert interviews, and research, startups may use up to 250 000 \$ in becoming successful in Silicon Valley, which is a significant sum to invest in such an endeavor. For the initial three month period, authors estimate that about 50 000 \$ are required to fund this option, slightly lower than the accelerator option mainly due to less promotional expenses allocated. This expense category may be highly volatile however, as holding for example a launch event would inflate the costs greatly. While in the accelerator option office space is provided through the program, here Witrafi would have to source their own office, costing around 750 \$ per month. Funding would most likely come through Tekes and either YIC funding or planning for global growth funding, however contrary to the previous option, the case company would have to supply more funding itself as there is no accelerator program to partially fund the project.

## **7.2 Recommendations**

The objective of this research is not to provide a concrete method for the case company to internationalize into the Silicon Valley, but rather give various alternatives into how this could commence. These have been outlined in the previous chapter.

Out of domestic funding options, it is clear that the best alternative is Tekes YIC funding, as its “grant level” is the highest, with 70 % of project costs paid by Tekes. The other alternatives would deplete the company’s resources at a faster rate. The program is rather dif-

difficult to get into, but when the case company fits the requirements it is certainly recommended to join, as it opens up possibilities for different kinds of internationalization alternatives through the funding. The planning for global growth option is also viable, if the focus of Witrafi's next project is only on internationalization.

How to internationalize is not always an easy decision, nor can it be foreseen in all cases. Startups operate largely through taking chances (however calculated or not they may be). Because a large part of success is networking and using these networks, the chances are also largely based on them. You never know who you'll meet, or who your next business partner is. Startups are in search for these continuously. This is why the authors have identified several internationalization methods that can play out according to what the future holds at the time the internationalization into Silicon Valley is started. It should be noted that this cannot happen at a too early stage, because it may deplete resources too quickly and lead to financial problems especially in the event that the internationalization is not successful. A startup may however stay in the Serendipity and Pragmatic options for a long time without consuming too much resources.

Hence the identified scenarios are recommendations in itself, and the most suitable one should be chosen according to the company's level of commitment. The case company can be identified to have been in the Serendipity phase for a while now, whereas the pragmatic phase has been superseded shortly after founding the company because opportunities should be searched at all times. If the case company truly wishes to pursue internationalization to Silicon Valley however, methods starting from Incremental to Hierarchical should be chosen, because all of them provide more or less constant presence in Silicon Valley. The method will in any case change, if while operating in the Serendipity approach a chance is taken into keeping a more intense presence in the Silicon Valley. This is a key factor by outside stakeholders to identify the case company as being serious about coming to Silicon Valley. The incremental approach may provide some value for money, but it is only suitable for pursuing a certain thing, such as gaining funding or starting a strategic partnership, but time allocated to that option will likely not provide for a broad set of efforts. The most benefits come from attending accelerators and pursuing hierarchical entry. They could constitute as a total immersion into Silicon Valley, and would bring a bolstered network, possible investments and partners in all relevant areas for startups, such as funding, partnerships and most importantly sales. Here, the end of the program, the 'Demo Day' (as they are often called) plays a large part, because the audience in these days are always filled with investors, possible partners and clients; naturally in addition to the demo being something actually concrete on US soil, a big traction factor.

In short, the case company should identify the desired results based on its current situation when starting to enter Silicon Valley. In any case, the company should make its position such that it could be accepted to the Tekes YIC funding program, as it would financially permit pursuing any of these identified internationalization methods.

### **7.3 Limitations, ethical view and further research**

Some of the limitations of this research have been discussed in previous chapters, most notably in chapter five. The biggest limitation of this research is the case it concerns. The results should not be generalized because the research is written with the case company in mind. The authors have attempted to use only high-quality source materials but in some parts have had to rely on interpretation of data that may not be accurate as a result of being analyzed incorrectly. The authors acknowledge that they have limited experience in conducting research of this scale and also had limited interview skills. (USC Libraries 2016)

Authors have tried to mitigate the limitations by adhering to Haaga-Helia guidelines for thesis writing. Furthermore, a critical approach to own biases has been implemented. The authors have followed ethical guidelines of research and care was taken to explain to the interviewees what the purpose of their interviews is. This research does not include any confidential material.

For the commissioning company, it is necessary to understand that the demarcation of the case sets some limitations on the results. By no means do the authors propose that other options for internationalization do not exist as well, nor does this research suggest whether U.S. market entry is recommendable or not. For further research, authors propose at least a closer inspection of the case company's internal capabilities and existing networks. Furthermore, a detailed market research of a target market and preparation of an internationalization plan can be recommended.

### **7.4 Project management**

This research project started in October 2015, the thesis plan was submitted on 19<sup>th</sup> of October and was approved shortly after. This research has two authors which has impacted the project management both positively and negatively. Both of the authors have academic and professional interests from the area under study, and it was evident from early on that the research would be conducted properly with the best of authors' abilities and in accordance with Haaga-Helia guidelines and best practices.

Authors kept regular contact throughout the project via Skype, mobile-phone, Trello and Facebook and a proper face-to-face meeting was organized approximately every other week, excluding the holidays. Time management wise the completion of this research took longer than anticipated. A major reason for the delay was the difficulty to find a suitable theoretical framework for the case. From the original thesis plan very few theories remain in the final version. Also, the ambiguity of start-ups and their operative environment together with limitations set by case company challenged the authors on several occasions. Initially authors wished to complete the project by the end of February so the project completion has been delayed by over a month.

Towards the end of the research authors realized that the research could continue on and on, which was a sign that authors had forgotten the demarcation. Corrective action was taken and although certain amount of text had to be discarded the authors reacted to this as a part of the learning process. In the end, authors feel that the resulting research fulfills the requirements of Haaga-Helia Bachelor's Thesis as well as provides in-depth insights for the case company. Authors are quite satisfied with the quality of the research, although in some parts compromises had to be done. Taking into account the starting point and uniqueness of the case, the research can be said to have been successful.

#### **7.4.1 Work division**

The authors decided not to complicate the research with the work division. The work was divided based partly on the authors' prior work experience and partly on the fact that Siitonen had access to and better understanding of the case company. Interviews were conducted by Matilainen with the exception of Krivan's email interview.

- Siitonen wrote abstract, 1.0, and 1.4; Matilainen the following sub-chapters, key concepts were divided
- Matilainen wrote chapters 2 & 5 entirely whereas Siitonen chapters 3 & 4
- From chapter 6.1. Matilainen wrote most as the context introduced in chapter 2.
- 6.2. was divided (table)
- 6.4 was divided so that Siitonen concentrated on funding and Matilainen services
- 6.5. was written by Matilainen
- 6.6. was written by Matilainen
- 6.7. was divided, Siitonen wrote the first three scenarios, Matilainen the last two
- Chapter 7 was divided (table)



Table 11. Work division.

Chapter	Niki	Sampsa
1	1.1,1.2.,1.3., 1.5. (key concepts divided)	Abstract, 1.0., 1.4 (key concepts)
2	Entirely	-
3	-	Entirely
4	-	Entirely
5	Entirely	-
6	6.1., 6.1.1, 6.1.2., 6.1.3. 6.2.1, 6.2.2 - 6.4. Team Finland was divided (services) 6.5. incl. sub-chapters 6.6. excl. 6.6.1 6.7.4, 6.7.5	6.0, 6.1.4. 6.2, 6.2.3, 6.2.4 6.3 6.4. TF was divided, (funding) - 6.6.1 6.7.0, 6.7.1., 6.7.2, 6.7.3
7	7.3., 7.4.	7.0.,7.1. 7.2.

## 7.5 Personal learning and self-assessment

Here the authors assess their personal learning experience and time management.

### 7.5.1 Niki Matilainen

The research process has been challenging yet very rewarding. I am confident in saying that I learned a lot more than 15 credits worth. At times it has been frustrating that the concepts used in discussion are ambiguous and much of the entrepreneurial activities are based on “hype” due to the environment being so uncertain. The research turned out to be something completely different than I anticipated. At first we approached the research from the point of view learned in Haaga-Helia courses, and I anticipated that we would use a lot more budgeting and concentrate on international trade participants such as logistics providers. However, soon after the first version of theoretical framework it was apparent that start-ups operate in a very different environment and that I personally had a limited understanding of start-up operations. Thus I had to re-write most of my part of theoretical framework. I am glad that I did, because I learned a lot and feel that the part now corresponds better with the case context.

My time-management was poor in the beginning but improved towards the end. I believe I had spent over 400 hours researching by the beginning of January, which served as a sort

of a wake-up call for me. It was exciting and enlightening to conduct the interviews with Suomela and Klyszeiko and I am thankful for them for their time. It was only weeks after the interviews when I understood how much knowledge they were able to provide me with. I had no motivation problems as internationalization genuinely interests me. Occasionally I had trouble relating to the challenges faced by start-ups, and there seemed to be very few concrete options available. At those times I was able to rely on co-author Siitonen for support.

In the end, I feel that we as authors were able to demonstrate that the chosen research approach is the correct one for this unique case. Although we don't give concrete recommendations I feel that the research provides the case company and other stake-holders with valuable insights when it comes to the U.S. market entry and start-up internationalization. Personally I feel that the research process has given me some answers as to how I want to continue my professional growth and where my biggest strengths and weaknesses are.

### **7.5.2 Sampsa Siitonen**

#### **Sampsa Siitonen**

While operating as the CEO of the case company, I have had first-hand experience of Silicon Valley on 2 occasions, by attending Verizon Powerful Answers Awards in 2014 as a finalist and in 2015 as being part of a Haaga-Helia team researching the area for the HH Startup Schools internationalization purposes. In the first option, Witrafi pitched for a main prize of 1 million \$, but we did not win it. This was however a very interesting experience, and provided me the first touch into Silicon Valley. In the other, we were meeting relevant stakeholders for Startup School, but could also introduce our own agenda there to some of the same entities, such as coworking spaces and incubators, thus forming a larger network still. On both occasions I also met with several potential partners and investors.

That being said, while I did have some experience of especially the now identified Serendipity approach, I was largely unaware of the several other considerations to be made in the options regarding a higher grade of immersion into the Valley. Professionally I am now aware of these methods and what they entail, having academically studied these issues and the accompanying theory. Most importantly I can better separate myself via academic methods from the largesse of hype prevalent within the startup community. I am much better equipped now to study target markets in general as well, and should be able to apply this knowledge in my professional life. For me, this research was the best opportunity to learn such things, and being able to hedge from making mistakes in the future.

If some negative aspects should be noted, it should definitely include time management: this study was prolonged on my part extremely due to various Witrafi-related issues abound during the making of this research. This has probably and regrettably affected the workflow of my co-author, Niki Matilainen. However, it can be said that in these times Mr. Matilainen was still able to push me to complete my work.

Finally, I conclude that this was a very rewarding and different project for me. While it is difficult to estimate the amount of work done, and personally I do not value working itself but results gained, this research reached its goal through major effort by both authors. Startups are agile beasts, therefore our findings fit Witrafi perfectly, as we can choose a most suitable option based on our current wants and need at the point of internationalization.

## References

Accenture. How to run IT at the speed of Silicon Valley. URL:<https://www.accenture.com/us-en/insight-how-run-it-speed-silicon-valley.aspx>. Accessed: 10 February 2016.

Ahokas, M. 2012. Ohjelmistoyritysten rahoitusopas 2012. Ohjelmistoyrittäjät Ry ja Teknologiateollisuus Ry. Keili.

Alchemist Accelerator. 2016. URL:<http://alchemistaccelerator.com/>. Accessed: 8 January 2016.

Alcorn, J. 2015. Slumping Commodities Place A Premium On Risk Management. Forbes. URL: <http://www.forbes.com/sites/riskmap/2015/09/08/slumping-commodities-place-a-premium-on-risk-management/#6f1d80d529f4> Accessed: 23 March 2016.

Albert, P. & Gaynor, L. 2006. Technology business incubation management – Lessons of experience. In Bernasconi, M., Harris, S. & Moensted, M. High-tech entrepreneurship – Managing innovation, variety and uncertainty. Routledge. New York.

Altman, S. 22 April 2014. Y Combinator Posthaven. The new deal. URL: <https://blog.ycombinator.com/the-new-deal>. Accessed: February 2016.

American Automobile Association. Annual Cost to own and operate a vehicle falls to \$8,698 finds AAA. URL: <http://newsroom.aaa.com/2015/04/annual-cost-operate-vehicle-falls-8698-finds-aaa/>. Accessed: 8 March 2016.

Angel.co. 2016. Plug-and-Play IoT, URL:<https://angel.co/plug-and-play-iot-batch-4-spring-2016/apply>. Accessed: 7 January 2016.

Autio, E. 16 November 2015a. Managing Entrepreneurial Ecosystems. URL: <http://thegedi.org/managing-entrepreneurial-ecosystems/>. Accessed: 24 March 2016.

Autio, E. 30 June 2015b. Yes, policy can boost high-growth entrepreneurs! URL: <http://thegedi.org/yes-policy-can-boost-high-growth-entrepreneurs/>. Accessed: 1 April 2016.

Baird, R., Bowles, L. & Lall, S. 2013. Aspen Network of Development Entrepreneurs and Village Capital. Bridging the Pioneer Gap: The role of accelerators in launching high-impact enterprises.

Ballotpedia.org. 2016a. California State Assembly. URL: [https://ballotpedia.org/California\\_State\\_Assembly](https://ballotpedia.org/California_State_Assembly). Accessed: February 2016.

Ballotpedia.org. 2016b. United States Congress Elections 2016. URL: [https://ballotpedia.org/United\\_States\\_Congress\\_elections,\\_2016](https://ballotpedia.org/United_States_Congress_elections,_2016). Accessed: February 2016.

Bay Area Council Economic Institute & Booz & Company. March 2012. The culture of innovation – What makes San Francisco Bay Area companies different? URL: <http://www.strategyand.pwc.com/media/file/The-culture-of-innovation.pdf>. Accessed: February 2016.

Barrow, C., Burke, G., Molian, D. & Brown, R. 2005. Enterprise Development – The challenges of starting, growing and selling businesses. Thomson. London.

Berk, J. & Demarzo, P. 2011. Corporate Finance. 2nd ed. Pearson Education. Boston.

Bernasconi, M., Harris, S. & Moensted, M. 2006. High-tech entrepreneurship – Managing innovation, variety and uncertainty. Routledge. New York.

Bernasconi, M., Dibiaggio, L. & Ferrary, M. 2006. High-tech clusters – Network richness in Sophia Antipolis and Silicon Valley. In Bernasconi, M., Harris, S. & Moensted, M. High-tech entrepreneurship – Managing innovation, variety and uncertainty. Routledge. New York.

Blank, S. 2006. The four steps to the epiphany – Successful strategies for products that win. 3rd edition. Lulu.com. URL: [http://web.stanford.edu/group/e145/cgi-bin/winter/drupal/upload/handouts/Four\\_Steps.pdf](http://web.stanford.edu/group/e145/cgi-bin/winter/drupal/upload/handouts/Four_Steps.pdf). Accessed: 15 February 2016.

Blank, S. 25 January 2010. What's a start-up? First principles. URL: <http://steveblank.com/2010/01/25/whats-a-startup-first-principles/>. Accessed: 13 February 2016.

Blank, S. 3 June 2010b. The search for the fountain of youth – Innovation and entrepreneurship in the enterprise. URL: <https://steveblank.com/2010/06/03/the-search-for-the-fountain-of-youth-innovation-and-entrepreneurship-in-the-enterprise>. Accessed: 15 March 2016.

- Blank, S. May 2013. Why the lean start-up changes everything? Harvard Business Review. URL: <https://hbr.org/2013/05/why-the-lean-start-up-changes-everything/ar/1>. Accessed: 13 February 2016.
- Bloomberg. 10 February 2016. Huet, E. How Tech Startup founders are hacking immigration. URL: <http://www.bloomberg.com/news/articles/2016-02-10/how-tech-startup-founders-are-hacking-immigration>. Accessed: 16 February 2016.
- Bradley, J. 2016. How Is a Budget a Communication Tool? Houston Chronicle. URL: <http://smallbusiness.chron.com/budget-communication-tool-57477.html> Accessed: 3 April 2016.
- Brasoveanu, A. 2014. 5 Venture Capital Funding Insights. Digging into CrunchBase. URL: <https://medium.com/@algovc/5-venture-capital-funding-insights-8baccfc42f19#.41zzyn8so> Accessed: 5 December 2015.
- Braun, K. & Tietz, W. 2013. Managerial Accounting. 3rd ed. Pearson Education. Boston.
- Brigham, E. & Ehrhardt, M. 2014. Financial Management: Theory & Practice. 14th ed. South-Western, Cengage Learning. Mason.
- Brzezniak, N. 2016. Importance of the Budget Process. TGG Accounting. URL: <http://tgg-accounting.com/2012/05/importance-of-the-budget-process/> Accessed: 21 March 2016.
- Burgstone, J. 10 May 2012. What's wrong with the lean start-up. Inc. URL: <http://www.inc.com/jon-burgstone/flaws-in-the-lean-start-up.html>. Accessed: 22 March 2016.
- Bureau of Labor Statistics. May 2014. Occupational employment and wages. URL: <http://www.bls.gov/oes/current/oes230000.htm>. Accessed: 19 January 2016.
- Burns, P. 2014. New Venture Creation-A Framework for entrepreneurial start-ups. Palgrave Macmillan. Hampshire, England.
- BusinessDictionary. 2016. Business partner. URL: <http://www.businessdictionary.com/definition/business-partner.html>. Accessed: 2 March 2016.

Buyouts Insider. 2015. National Venture Capital Association Yearbook. Thomson Reuters.

California Governor's Office of Business. January 2012. Setting Up Business in California: A guide for investors. URL: <http://business.ca.gov/Portals/0/AdditionalResources/Setting%20Up%20Business%20in%20California-%20A%20Guide%20for%20Investors%202012.pdf>. Accessed: 29 February 2016.

Cavusgil, S., Knight, G. Riesenberger, J. 2012. International business. The new realities. Pearson Education. Upper Saddle River.

Cavusgil, S. T, Knight, G. & Riesenberger, J.R. 2014. International Business – The New Realities. 3rd ed. Pearson. Essex.

CB Insights. 2015a. 2014 Was a Giant Year for Seed VC Funding. URL: <https://www.cbinsights.com/blog/seed-venture-capital-2014/> Accessed: 20 December 2015.

CB Insight. 2015b. The 2014 Global Tech Exits Report. Slideshare. URL: <http://www.slideshare.net/CBInsights/the-2014-global-tech-exits-report>. Accessed: 26 March 2016.

CB Insights. 2014. Seed round sizes. URL: <https://www.cbinsights.com/blog/seed-venture-capital-2014/>. Accessed: 12 December 2015.

Cecere, L. 2014. Forbes. Can You Afford The Risk? URL: <http://www.forbes.com/sites/loracecere/2014/04/16/can-you-afford-the-risk/#2401c042c5de> Accessed: 17 March 2016.

Centre for Economic Development. 24 September 2015. Business and Industry. URL: <https://www.ely-keskus.fi/en/web/ely-en/business-and-industry>. Accessed: 8 January 2016.

Chaston, I. 2010. Entrepreneurial management in small firms. Sage. London.

CIA World Factbook. United States. URL: <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>. Accessed: 20 February 2016.

CNBC. 6 January 2016. Wickham, P. Will Silicon Valley's 'unicorns' gallop off a cliff in 2016? URL: <http://www.cnn.com/2016/01/06/will-silicon-valleys-unicorns-gallop-off-a-cliff-in-2016-commentary.html>. Accessed: 21 February 2016.

Cohen, B. 2006. Sustainable Valley Entrepreneurial Ecosystems. Business Strategy and the Environment. 01/2006. URL: [https://www.researchgate.net/publication/227617780\\_Sustainable\\_valley\\_entrepreneurial\\_ecosystems](https://www.researchgate.net/publication/227617780_Sustainable_valley_entrepreneurial_ecosystems). Accessed: 22 January 2016.

Cohen, S. 2013. Innovations. Vol. 8. No. ¾. MIT Press Journals. What do Accelerators do? Insights from Incubators and Angels.

Commission Regulation (EC) No 1998/2006 of 15 December 2006 on the application of Articles 87 and 88 of the Treaty to de minimis aid.

Compass. The Global Startup Ecosystem Ranking 2015. URL: [https://s3-us-west-2.amazonaws.com/compassco/The\\_Global\\_Startup\\_Ecosystem\\_Report\\_2015\\_v1.2.pdf](https://s3-us-west-2.amazonaws.com/compassco/The_Global_Startup_Ecosystem_Report_2015_v1.2.pdf). Accessed: 22 March 2016.

Computer Desktop Encyclopedia. 2016. Smart Parking. URL: [encyclopedia2.thefreedictionary.com/smart+parking](http://encyclopedia2.thefreedictionary.com/smart+parking) Accessed: 12. March 2016.

Barua, N. 2015. Strategic Analysis of Smart Parking Market in Europe and North America. Frost & Sullivan.

Coppola, A. 21 November 2014. Stanford Seminar – Alfredo Coppola of U.S. Market Access. Youtube. URL: <https://youtu.be/k-0B8qYwWPg>. Accessed: 24 January 2016.

Corporate-Accelerator DB. 21 February 2016. URL: <https://corporate-accelerators.net/database/index.html>. Accessed: 1 March 2016.

CostHelper. Accountant Cost. URL: <http://smallbusiness.costhelper.com/accountants.html>. Accessed: 29 February 2016.

Crunchbase. 2016. URL: [www.crunchbase.com](http://www.crunchbase.com). Accessed: 28 January 2016.

Culp, S. 2012. Political Risk Can't Be Avoided, But It Can Be Managed. Forbes. URL: <http://www.forbes.com/sites/steveculp/2012/08/27/political-risk-cant-be-avoided-but-it-can-be-managed/#1eb514de18c6> Accessed: 12 March 2016.



Daniels, J. D. Radebaugh, L.H. & Sullivan, D. P. 2015. International Business – Environments and Operations. 15th ed. Pearson. Essex.

Dempwolf, C. S., Auer, J. & D'Ippolito, M. 2014. Innovation Accelerators: Defining Characteristics Among Startup Assistance Organizations. Optimal Solutions Group commissioned by Small Business Administration. URL:<https://www.sba.gov/sites/default/files/rs425-Innovation-Accelerators-Report-FINAL.pdf>. Accessed: 10 January 2016.

Dibiaggio, L. 2006. For high-tech small is beautiful – Why small firms can handle complexity better. In Bernasconi, M., Harris, S. & Moensted, M. 2006. High-tech entrepreneurship – Managing innovation, variety and uncertainty, pp. 33-49. Routledge. New York.

DMI Associates. April 2006. Evaluation of International trade centre (UNCTAD/WTO). Global context. Vol.6. URL: <http://www.itcevaluation.org/filedir/reports/global%20context%20a/role%20of%20trade%20support%20networks.pdf>. Accessed: 28 January 2016.

Druilhe, C. & Garnsey, E. 2006. University spin-out firms-Patterns of development based on expertise. In Bernasconi, M., Harris, S. & Moensted, M. High-tech entrepreneurship – Managing innovation, variety and uncertainty, pp. 158-173. Routledge. New York.

Drury, C. 2007. Differences between management accounting and financial accounting. 7th ed. Cengage Learning EMEA. Hampshire.

Dunning, J. H. 1980. Toward an eclectic theory of international production: Some empirical tests. Journal of International Business Studies. Vol.11. p.9-31. Spring 1980.

Eiteman, D., Stonehill, A. & Moffett, M. 2010. Multinational Business Finance. 12th ed. Pearson Education. Boston.

Enterprise Europe Network. 2016. Going international. URL:<http://een.ec.europa.eu/content/going-international>. Accessed: 15 January 2016.

Ernst&Young. 2011. Globalizing Venture Capital. URL:[http://www.ey.com/Publication/vwLUAssets/Globalizing\\_venture\\_capital\\_VC\\_insights\\_and\\_trends\\_report\\_CY0227/\\$FILE/Globalizing%20venture%20capital\\_VC%20insights%20and%20trends%20report\\_CY0227.pdf](http://www.ey.com/Publication/vwLUAssets/Globalizing_venture_capital_VC_insights_and_trends_report_CY0227/$FILE/Globalizing%20venture%20capital_VC%20insights%20and%20trends%20report_CY0227.pdf). Accessed: 1 March 2016.

Ely-Keskus. 2015a. Yrityksen kehittämisavustus. URL: <https://www.ely-keskus.fi/web/ely/yrityksen-kehittamisavustus#.VI3mTMphq1P> Accessed: 19 February 2016.

ELY Keskus. 2016b. Rahoitus ja avustukset. URL: <http://www.ely-keskus.fi/web/ely/rahoitus-ja-avustukset#.VuB8IBh9Dzk> Accessed: 7 March 2016.

Falahat, M., Migin, M., Chuan, C, S. & Kong, P, F. 2015. Conceptualising the early and rapid internationalising firms. *Procedia - Social and Behavioral Sciences* 11/2015. URL: [https://www.researchgate.net/publication/286530493\\_Conceptualising\\_the\\_Early\\_and\\_Rapid\\_Internationalising\\_Firms](https://www.researchgate.net/publication/286530493_Conceptualising_the_Early_and_Rapid_Internationalising_Firms). Accessed: 2 March 2016.

Federal Reserve System (FED). 26 January 2016. Statement on Longer-run goals and monetary policy strategy. URL: [http://www.federalreserve.gov/monetarypolicy/files/FOMC\\_LongerRunGoals\\_20160126.pdf](http://www.federalreserve.gov/monetarypolicy/files/FOMC_LongerRunGoals_20160126.pdf). Accessed: 20 February 2016.

Finnfund. 2016. Finnfund in brief. URL: [http://www.finnfund.fi/yritys/en\\_GB/brief/](http://www.finnfund.fi/yritys/en_GB/brief/) Accessed: 2 February 2016.

Finnish Industry Investment. 2016a. About us. URL: <http://www.industryinvestment.com/about-us> Accessed: 10 December 2015.

Finnish Industry Investment. 2016b. Investment operations. URL: <http://www.industryinvestment.com/investments> Accessed: 10 December 2015.

Finnish Industry Investment. 2016c. Investments in growth companies. URL: <http://www.industryinvestment.com/investments/investments-in-companies> Accessed: 10 December 2015.

Finnpartnership. 2016. Finnpartnership. URL: <http://finnpartnership.fi/www/en/finnpartnership/index.php> Accessed: 2 February 2016.

Finnvera Oyj 2016. URL: <https://www.finnvera.fi/Tuotteet/Lainat/Siltarahoitus-avustusten-maksua-edeltaevaella-ajalle> Accessed: 12 February 2016.

Finnvera. 2016a. Finnvera in brief. URL: <https://www.finnvera.fi/eng/Finnvera/Finnvera-in-brief/Finnvera-Introduction> Accessed: 7 March 2016.

Finnvera. 2016b. Strategy. URL: <https://www.finnvera.fi/eng/Finnvera/Finnvera-in-brief/Strategy> Accessed: 7 March 2016.

FireMatter. April 2015. Views Survey Report – Challenges and Strategies of International tech companies in the U.S. URL: <http://firematter.com/views/>. Accessed: 5 March 2016.

Forbes. 10 February 2016. Dill, K. The metros most exceeding job growth expectations. URL:[http://www.forbes.com/sites/kathryndill/2016/02/10/the-metros-most-exceeding-job-growth-expectations/?utm\\_campaign=Forbes&utm\\_source=TWITTER&utm\\_medium=social&utm\\_channel=Leadership&linkId=21166724#226077007839](http://www.forbes.com/sites/kathryndill/2016/02/10/the-metros-most-exceeding-job-growth-expectations/?utm_campaign=Forbes&utm_source=TWITTER&utm_medium=social&utm_channel=Leadership&linkId=21166724#226077007839). Accessed: 22 February 2016.

Fortune. Shoot, B. 23 May 2014. Can a virtual incubator democratize entrepreneurship? URL:<http://fortune.com/2014/05/23/can-a-virtual-incubator-democratize-entrepreneurship/>. 6 January 2016.

FoundersSpace. 2016. URL:<http://www.foundersspace.com/program/>. Accessed: 6 January 2016.

Fragile States Index 2015. The fund for peace. URL:[http://issuu.com/fund-forpeace/docs/fragile\\_states\\_index\\_-\\_annual\\_report\\_f3648acb0f45d8/7?e=2498657/13585266](http://issuu.com/fund-forpeace/docs/fragile_states_index_-_annual_report_f3648acb0f45d8/7?e=2498657/13585266). Accessed: 22 February 2016.

Gabrielsson, M. 2007. Born Globals – Käyntiinsaannin ja kasvun haasteet. In Laukkanen, M. 2007. Kasvuyritys. Talentum. Helsinki.

Garage Silicon Valley Catalyst. 2016. URL:<http://www.garage.com/garage-silicon-valley-catalyst/details-faqs/>. Accessed: 10 January 2016.

Graham, P. July 2007. The equity equation. URL:<http://paulgraham.com/equity.html#f1n>. Accessed: 28 February 2016.

Graham, P. 2012. Startup = Growth. URL: <http://www.paulgraham.com/growth.html>. Accessed: 20 March 2016.

Griffin, R, W. & Pustay, M. 2014. International Business. Global 8th edition. Pearson Education. London.

Haaga-Helia University of Applied Sciences. 2014. Thesis coordinators. Intranet. Writing reports and theses at Haaga-Helia. Accessed: 26 March 2016.

Harris, S. 2006. Network relationships in different cultures – High-tech globalization meets local cultures. In Bernasconi, M., Harris, S. & Moensted, M. High-tech entrepreneurship – Managing innovation, variety and uncertainty, pp. 112-130. Routledge. New York.

Harvard University. Unknown date. Research Methods. URL: [http://isites.harvard.edu/fs/docs/icb.topic851950.files/Research%20Methods\\_Some%20Notes.pdf](http://isites.harvard.edu/fs/docs/icb.topic851950.files/Research%20Methods_Some%20Notes.pdf). Accessed: 29 March 2016.

Helsingin Sanomat. 12 November 2015. Ahlroth, J. Myyttinen Mårten Mickos majoittaa suomalaisia startup-yrittäjiä San Franciscossa kotisohvalleen.

URL:<http://www.hs.fi/talous/a1447300714578>. Accessed: 8 March 2016.

Hendricks, D. 17 February 2015. Forbes. 7 Leading Accelerators Overseas Startups coming to Silicon Valley. URL:<http://www.forbes.com/sites/drewhendricks/2015/02/17/7-leading-accelerators-for-overseas-startups-coming-to-silicon-valley/#16ca0fb6f69e>. Accessed: 6 January 2016.

The Hofstede Centre. Country comparison tool. URL: <http://geert-hofstede.com/finland.html>. Accessed: 29 February 2016.

Hollensen, S. 2014. Global Marketing. 6th edition. Pearson. Harlow.

Holm, U., Forsgren, M. & Johanson, J. 2015. Knowledge, Networks and Power: The Uppsala School of International Business. Palgrave Macmillan. URL: [https://books.google.fi/books?hl=en&lr=&id=6BHACQAAQBAJ&oi=fnd&pg=PA111&ots=w99Grei7t-&sig=Hb43-HWKnq7uChhODQASLspkg1g&redir\\_esc=y#v=onepage&q&f=false](https://books.google.fi/books?hl=en&lr=&id=6BHACQAAQBAJ&oi=fnd&pg=PA111&ots=w99Grei7t-&sig=Hb43-HWKnq7uChhODQASLspkg1g&redir_esc=y#v=onepage&q&f=false). Accessed: 20 February 2016.

Hotels.com. 2016. URL: [www.hotels.com](http://www.hotels.com). Accessed: 4 March 2016.

Hudson, M. 2015. An Angel Investor's Job Description. Forbes. URL: <http://www.forbes.com/sites/mariannehudson/2015/10/29/an-angel-investors-job-description/#30e90a5a282b> Accessed: 25 March 2016.

Hisrich, R, D., Peters, M, P. & Shepherd, D, A. 2010. Entrepreneurship. 8th international edition. McGraw-Hill. Singapore.

Information for development program (InfoDev). September 2011. Lessons on Virtual Incubation services. Report prepared by Triodos facet Bv. URL: [https://www.infodev.org/infodev-files/resource/InfodevDocuments\\_1144.pdf](https://www.infodev.org/infodev-files/resource/InfodevDocuments_1144.pdf). Accessed: 7 January 2016.

International Business Innovation Association. 2016. Business Incubation FAQ. URL:<https://www.inbia.org/resources/business-incubation-faq>. Accessed: 8 January 2016.

International Business Innovation Association. 2016. Tips and Best practices. URL: <https://www.inbia.org/resources/for-entrepreneurs/tips-and-best-practices>. Accessed: 8 January 2016.

Investopedia. 2015. Imperfect market. URL: <http://www.investopedia.com/terms/i/imperfectmarket.asp>. Accessed: 25 November 2015.

Investopedia. 2016a. Alternative Investments - The Stages in Venture Capital Investing. URL: <http://www.investopedia.com/exam-guide/cfa-level-1/alternative-investments/venture-capital-investing-stages.asp> Accessed: 3 January 2016.

Investopedia. 2016b. Preferred stock. URL: <http://www.investopedia.com/terms/p/preferredstock.asp>. Accessed: 12 March 2016.

Investopedia. 2016c. Opportunity cost. URL: <http://www.investopedia.com/terms/o/opportunitycost.asp>. Accessed: 12 March 2016.

Investopedia. 2016d. Exit Strategy. URL: <http://www.investopedia.com/terms/e/exitstrategy.asp>. Accessed: 23 March 2016.

Investopedia. 2016e. Virtual Office. URL:<http://www.investopedia.com/terms/v/virtual-office.asp>. Accessed: 1 March 2016.

Investopedia. 2016f. Series A. URL: <http://www.investopedia.com/terms/s/seriesa.asp>. Accessed: 12 March 2016.

Investopedia. 2016g. Cost-Benefit Analysis. URL: <http://www.investopedia.com/terms/c/cost-benefitanalysis.asp> Accessed: 25 March 2016.

Irwin, T. 30 October 2012. Methods of exporting, and their pros and cons. TCii Strategic and management consultants. URL: <http://www.tcii.co.uk/2012/10/30/methods-of-exporting-and-their-pros-and-cons/>. Accessed: 19 March 2016.

Isenberg, D. 2010. The big idea: How to start an entrepreneurial revolution. Harvard Business Review. June 2010. URL: <https://hbr.org/2010/06/the-big-idea-how-to-start-an-entrepreneurial-revolution/ar/1>. Accessed: 20 March 2016.

Isenberg, D. 2015. Scale Up Ecosystems for Growth Entrepreneurship. URL: <http://entrepreneurial-revolution.com/wp-content/uploads/2015/12/EES-Domains-and-Pillars-Scale-UpTM-Ecosystems-for-Growth.jpg>. Accessed: 20 February 2016.

Johnson, D. & Turner, C. 2003. International Business – Themes and issues in the modern global economy. Routledge. New York.

Kauffman Index. 2015. The startup activity – National Trends. URL: [http://www.kauffman.org/~media/kauffman\\_org/research%20reports%20and%20covers/2015/05/kauffman\\_index\\_startup\\_activity\\_national\\_trends\\_2015.pdf](http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2015/05/kauffman_index_startup_activity_national_trends_2015.pdf). Accessed: 22 March 2016.

Kauppakamari.fi. 2016. URL: <http://kauppakamari.fi/en/>. Accessed: 5 January 2016.

Kauppalehti. 12 May 2015. Suomalaispiiri pyörii lännessä. URL: <http://www.kauppalehti.fi/uutiset/suomalaispiiri-pyorii-lannessa/Yb4J29va>. Accessed: 27 February 2016.

Kimmons, R. 1990. Project Management Basics. A Step by Step Approach. Marcel Dekker. New York.

Knight, F.H. 1921. Risk, uncertainty and profit. Reprints of economic classics. New York 1964. URL: [https://mises.org/sites/default/files/Risk,%20Uncertainty,%20and%20Profit\\_4.pdf](https://mises.org/sites/default/files/Risk,%20Uncertainty,%20and%20Profit_4.pdf). Accessed: 15 February 2016.

Kushida, K. 2015. A strategic overview of Silicon Valley Ecosystem: Towards effectively “harnessing” the ecosystem. Stanford Silicon Valley New Japan project. URL: <http://static1.squarespace.com/static/54b4afe7e4b096f7dca62bef/t/55a7e4afe4b079318ff0d68d/1437066415176/2+The+Silicon+Valley+Ecosystem+2015.pdf>. Accessed: 20 March 2016.

Ladd, T. 7 March 2016. The limits of the lean start-up method. Harvard Business Review. URL: <https://hbr.org/2016/03/the-limits-of-the-lean-startup-method>. Accessed: 22 March 2016.

Laitinen, S. 2007. Doing business in the USA – Opas oikeudellisten riskien hallintaan Yhdysvalloissa. Talentum. Helsinki.

Los Angeles Times. 11 February 2016. Duc-Mai, C. Gov. Jerry Brown makes budget the latest battleground on climate change. URL: <http://www.latimes.com/politics/la-pol-sac-brown-cap-trade-oil-fight-20160211-story.html>. Accessed: 25 February 2016.

Lynch, R. 2012. Strategic Management. 6th ed. Pearson. Essex.

Lynch, R. 2015. Strategic Management. 7th ed. Pearson. Essex.

Mashable. 17 February 2012. Akalp, N. LLC vs. S Corp: Which is right for your startup? URL: <http://mashable.com/2012/02/17/small-business-incorporation/#TrRR2dg0pEq9>. Accessed: 25 February 2016.

Matheson, L. 2015. Startup Budgets And Timing Burn: Are Founders Winging It? Tech Crunch. URL: <http://techcrunch.com/2015/11/01/startup-budgets-and-timing-burn-are-founders-winging-it/> Accessed: 15 March 2016.

Meetup.com. 2016. Silicon Valley. URL: <http://www.meetup.com/topics/silicon-valley/>. Accessed: 8 March 2016.

Merriam-Webster. 2016. URL: <http://www.merriam-webster.com/>. Accessed: February 2016.

Mehta, J. 2014. Startups beware. You do not need money. You need 'smart money'. Your story. URL: <http://yourstory.com/2014/11/smart-money-startups-beware/> Accessed: 29 March 2016.

Metrick, A. & Yasuda, A. 2011. Venture capital & the finance of innovation. 2nd ed. John Wiley & Sons, Inc. Hoboken.

Meyer, M, H. & Crane, F, G. 2014. New Venture Creation – An innovators guide to entrepreneurship. 2nd ed. Sage. London

Moensted, M. 2006. High-tech, uncertainty and innovation. In Bernasconi, M., Harris, S. & Moensted, M. High-tech entrepreneurship – Managing innovation, variety and uncertainty, pp. 15-32. Routledge. New York.

Momondo. 2016. URL: [www.momondo.com](http://www.momondo.com). Accessed: 28 February 2016.

Moreau, F. 2006. Strategy development processes – The importance of considering integration and timing. In Bernasconi, M., Harris, S. & Moensted, M. High-tech entrepreneurship – Managing innovation, variety and uncertainty, pp. 144-157. Routledge. New York.

Morgan, J. 2014. A simple explanation of the Internet of Things. Forbes. URL: <http://www.forbes.com/sites/jacobmorgan/2014/05/13/simple-explanation-internet-things-that-anyone-can-understand/#66f22d5f6828> Accessed: 12 March 2016.

National Transportation Research Group. September 2014. California transportation by numbers-Meeting the states needs for safe and efficient mobility. URL: [http://www.tripnet.org/docs/CA\\_Transportation\\_by\\_the\\_Numbers\\_TRIP\\_Report\\_Sep\\_2014.pdf](http://www.tripnet.org/docs/CA_Transportation_by_the_Numbers_TRIP_Report_Sep_2014.pdf). Accessed: 18 February 2016.

Nobel, C. 7 March 2011. Why companies fail and how their founders can bounce back. Harvard Business School. URL: <http://hbswk.hbs.edu/item/why-companies-failand-how-their-founders-can-bounce-back>. Accessed: 25 March 2016.

Nordic Innovation House. URL: <http://www.nordicinnovationhouse.com/apply>. Accessed: 1 March 2016.

The Nordic Web. 2015. 2014 Nordic funding analysis. URL: <http://www.thenordic-web.com/blog/2014-nordic-funding-analysis> Accessed: 8 December 2015.

The Office of Silicon Valley. URL: <http://theofficeofsiliconvalley.com/office-space/virtual-office-space/>. Accessed: 1 March 2016.

OECD 2008. Benchmark definition of Foreign Direct Investment. 4th ed. <http://www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf>. Accessed: 24 November 2015.



Ojala, A. (2009). Internationalization of knowledge-intensive SMEs: The role of network relationships in the entry to a psychologically distant market. *International Business Review*, 18 (1), 50-59. doi:10.1016/j.ibusrev.2008.10.002.

Parking Today. 2015. Parking Apps. Demystifying the 200+ "Parking app ecosystem". URL: [www.parkingtoday.com/articledetails.php?id=1892](http://www.parkingtoday.com/articledetails.php?id=1892) Accessed: 28 December 2015.

Patentti- ja Rekisterihallitus (PRH) 2016. Company information database. URL: <https://tietopalvelu.ytj.fi/yritystiedot.aspx?yavain=2458884&tar-kiste=71F9D3948348773D5E803264FA9A3B55D1DA08EB> Accessed: 5 January 2016.

PewResearch. 12 June 2014. Doherty, C. 7 things to know about polarization in America. URL: <http://www.pewresearch.org/fact-tank/2014/06/12/7-things-to-know-about-polarization-in-america/>. Accessed: 18 February 2016.

Pike, R., & Neale, B. 2009. *Corporate Finance and Investment. Decisions and strategies.* 6th ed. Pearson Education. Harlow.

Prahalad, C.K. 2005. *The fortune at the bottom of pyramid.* Pearson. Wharton School Publishing.

Rapo, R. & Seulamo-Vargas, M. 2010. Silicon Valley Journey-Experiences of Finnish IT Startups from Dot-Com boom to 2010. *Tekes Review*. 267/2010. URL: [http://www.tekes.fi/globalassets/julkaisut/silicon\\_valley\\_journey.pdf](http://www.tekes.fi/globalassets/julkaisut/silicon_valley_journey.pdf). Accessed: 26 February 2016.

Rasmussen, E, S. & Madsen, T, K. 2002. The Born Global concept. Paper for the EIBA Conference. URL: <http://www.sam.sdu.dk/~era/EIBA%20Rasmussen%202002%20.pdf>. Accessed: 18 March 2016.

Regus. URL:<http://www.regus.com/virtual-office/united-states/california/sunnyvale>. Accessed: 1 March 2016.

Research Methodology. 2016a. Exploratory Research. URL: <http://research-methodology.net/research-methodology/research-design/exploratory-research/>. Accessed: 26 March 2016.

Research Methodology. 2016b. Inductive Approach. URL: <http://research-methodology.net/research-methodology/research-approach/inductive-approach-2/>. Accessed: 26 March 2016.

Ries, E. 2014. *The Lean Startup*. Crown Publishing. New York.

RocketSpace. URL: <https://rocketspace.com/>. Accessed: 29 February 2016.

Rugman, A, M. 2013. Internalization and non-equity forms of international involvement. In Rugman, A, M. 2013. *New theories of the multinational enterprise*. Routledge. London.

Rugman, A, M. & Collinson, S. 2012. *International Business*. 6th edition. Pearson. Essex.

Raye, K. 2016. What Is the Difference Between a Budget & a Rolling Budget? *Houston Chronicle*. URL: <http://smallbusiness.chron.com/difference-between-budget-rolling-budget-65435.html> Accessed: 21 March 2016.

Ruzza, E. 2014. *Born Global – A debate on organizational forms and processes*. Master's Degree Thesis. Ca' Foscari University of Venice. URL: <http://dspace.unive.it/bit-stream/handle/10579/5280/828224-1183735.pdf?sequence=2>. Accessed: 18 March 2016.

SeedInvest. How does a convertible note work? URL: <https://www.seedinvest.com/blog/startup-investing/how-convertible-notes-work>. Accessed: February 2016.

Seedrankings.com. 2014. *Accelerator Rankings*. URL: [http://seedrankings.com/pdf/sarp\\_2014\\_accelerator\\_rankings.pdf](http://seedrankings.com/pdf/sarp_2014_accelerator_rankings.pdf). Accessed: 7 January 2016.

Sharkey, M. 16 October 2013. 6 things wrong with the lean startup model (and what to do about it). *VentureBeat*. URL: <http://venturebeat.com/2013/10/16/lean-startups-boo/>. Accessed: 22 March 2016.

Silicon Valley Index 2016. *Joint Venture Silicon Valley & Institute for Regional studies*. URL: <http://siliconvalleyindicators.org/pdf/index2016.pdf>. Accessed: 27 February 2016.

Silicon Vikings. 2016. URL: <http://siliconvikings.com/>. Accessed: 8 March 2016.

Sipola, S. 2015. *Understanding growth and non-growth entrepreneurial economies-Analysis of startup industries and experimental winner generation in Finland, Israel and Silicon*

Valley. University of Oulu Graduate School. URL: <http://herkules.oulu.fi/isbn9789526208138/isbn9789526208138.pdf>. Accessed: 21 March 2016.

Small Business Administration. 18 August 2015. Beesley, C. Selling into the U.S. as a foreign business: Should you incorporate your business here? Blog. URL:<https://www.sba.gov/blogs/selling-us-foreign-business-should-you-incorporate-your-business-here>. Accessed: 20 February 2016.

Spinuzzi, C. 2012. Working Alone, Together: Coworking as emergent Collaborative Activity. *Journal of Business and Technical Communications*. 26(4). URL:<https://utexas-ir.tdl.org/bitstream/handle/2152/28331/SpinuzziWorkingAloneTogether.pdf?sequence=4&isAllowed=y>. Accessed: 27 February 2016.

Spreitzer, G., Bacevice, P. & Garret, L. September 2015. Why people thrive in coworking space? *Harvard Business Review*. URL:<https://hbr.org/2015/05/why-people-thrive-in-coworking-spaces>. Accessed: 27 February 2016.

Stanford University. The rise of Silicon Valley. URL:[https://www.stanford.edu/about/history/history\\_ch3.html](https://www.stanford.edu/about/history/history_ch3.html). Accessed: 15 February 2016.

Startup Genome. March 2012a. Startup Genome Report. URL: [https://s3.amazonaws.com/startupcompass-public/StartupGenomeReport1\\_Why\\_Startups\\_Succeed\\_v2.pdf](https://s3.amazonaws.com/startupcompass-public/StartupGenomeReport1_Why_Startups_Succeed_v2.pdf). Accessed: 20 January 2016.

Startup Genome. 2012b. Startup Genome Report Extra on premature scaling. URL: [https://s3.amazonaws.com/startupcompass-public/StartupGenomeReport2\\_Why\\_Startups\\_Fail\\_v2.pdf](https://s3.amazonaws.com/startupcompass-public/StartupGenomeReport2_Why_Startups_Fail_v2.pdf). Accessed: 24 March 2016.

Startup commons 2016. Startup Development Phases. URL: <http://www.startupcommons.org/startup-development-phases.html> Accessed: 15 February 2016.

Strauss, K. 22 April 2013. *Forbes*. Networking at incubators, accelerators and coworking spaces. URL: <http://www.forbes.com/sites/karstenstrauss/2013/04/22/networking-at-incubators-accelerators-and-coworking-spaces/#20b8d43a3ec0>. Accessed: 28 February 2016.

Suresh, J. & Ramraj, R. 2012. Entrepreneurial Ecosystem: Case study on the influence of Environmental factors on entrepreneurial success. *European Journal of Business and*

Management. Vol.4. No. 16, 2012. URL: [http://s3.amazonaws.com/academia.edu.documents/30077161/Entrepreneurial\\_Ecosystem.pdf?AWSAccessKeyId=AKIAJ56TQJRTWS-MTNPEA&Expires=1456471678&Signature=qv2ZOqVicRnQUwKYGd7y3CN5ssE%3D&response-content-disposition=inline%3B%20filename%3DIISTE\\_October\\_Research\\_Articles\\_Publicat.pdf](http://s3.amazonaws.com/academia.edu.documents/30077161/Entrepreneurial_Ecosystem.pdf?AWSAccessKeyId=AKIAJ56TQJRTWS-MTNPEA&Expires=1456471678&Signature=qv2ZOqVicRnQUwKYGd7y3CN5ssE%3D&response-content-disposition=inline%3B%20filename%3DIISTE_October_Research_Articles_Publicat.pdf). Accessed: 8 February 2016.

Taplin, R. 2007. Innovations and business partnering in Japan, Europe and the United States. Routledge. New York.

Team Finland 2014. Annual report. URL: [http://vnk.fi/documents/10616/1095776/TF\\_vuosikertomus\\_2014\\_en.pdf/67234ac0-f46f-47c6-9243-0847157fada3?version=1.0](http://vnk.fi/documents/10616/1095776/TF_vuosikertomus_2014_en.pdf/67234ac0-f46f-47c6-9243-0847157fada3?version=1.0). Accessed: 4 January 2016.

Team Finland. July 2014. Strategy update 2015. URL: [http://vnk.fi/documents/10616/1098657/J0714\\_Team+Finland+Strategy+2015.pdf/19ff0f61-1f74-4003-8b7b-8b029ba00d8e?version=1.0](http://vnk.fi/documents/10616/1098657/J0714_Team+Finland+Strategy+2015.pdf/19ff0f61-1f74-4003-8b7b-8b029ba00d8e?version=1.0). Accessed: January 2016.

TechCrunch. 26 February 2016. Eifrem, E. Lessons in moving your startup overseas to Silicon Valley. URL: <http://techcrunch.com/2016/02/26/lessons-in-moving-your-startup-overseas-to-silicon-valley/>. Accessed: 29 February 2016.

TechCrunch. 20 November 2015. Vallese, F. The pros and cons of accelerating your startup. URL: <http://techcrunch.com/2015/11/20/the-pros-and-cons-of-accelerating-your-startup/>. Accessed: 28 January 2016.

Tekes. 2016a. Tekes – the Finnish Funding Agency for Innovation. URL: <http://www.tekes.fi/en/tekes/> Accessed: 1 March 2016.

Tekes. 2016b. Tekesin kansainvälisen kasvun suunnittelu -rahoitus 2015. URL: <http://www.slideshare.net/TekesPresentations/tekesin-kansainvlisen-kasvun-suunnittelu-rahoitus-2015?ref=http://www.tekes.fi/rahoitus/rahoitusta-yritysten-kehitysprojekteihin/kansainvalisen-kasvun-suunnittelu/> Accessed: 1 March 2016.

Tekes. 2016c. Voisiko yrityksesi olla Tekesin asiakas? URL: <http://www.tekes.fi/rahoitus/tunnustelu/> Accessed: 1 March 2016.

Tekes. 2016d. Kansainvälisen kasvun suunnittelu. URL: <http://www.tekes.fi/rahoitus/rahoitusta-yritysten-kehitysohjelmien/kansainvalisen-kasvun-suunnittelu/> Accessed: 1 March 2016.

Tekes. 2016e. Young Innovative Companies funding programme (YIC). URL: <http://www.tekes.fi/en/funding/yic/> Accessed: 1 March 2016.

Tekes. 2016f. Young innovative company funding - what are we looking for. URL: <http://www.slideshare.net/TekesPresentations/niy-verkkosivujen-etusivulleyounginnovativecompaniesesitysv2?ref=http://www.tekes.fi/en/funding/yic/> Accessed: 1 March 2016.

Tekes. 2016g. Tekes Young Innovative Company Funding - Funding principles. <http://www.slideshare.net/TekesPresentations/tekes-young-innovative-company-funding>. Accessed: 1 March 2016.

Tekes. 2016h. AppGyver Rocket Spacessa. URL:<http://www.tekes.fi/ohjelmat-ja-palvelut/kasva-ja-kansainvalisty/yrityshautomot-usassa/case-appgyver/>. Accessed: 29 February 2016.

Tekes. 2016i. Audiodraft valitsi WeWorkin. URL:<http://www.tekes.fi/ohjelmat-ja-palvelut/kasva-ja-kansainvalisty/yrityshautomot-usassa/case-audiodraft/>. Accessed: 29 February 2016.

Tekes. 2016j. Mahdollisuuksia Yhdysvalloissa. URL:<http://www.tekes.fi/ohjelmat-ja-palvelut/kasva-ja-kansainvalisty/usa/>. Accessed: 7 January 2016.

Tekes 2016k. Transfluent Plug-and-Playssa. URL:<http://www.tekes.fi/ohjelmat-ja-palvelut/kasva-ja-kansainvalisty/yrityshautomot-usassa/case-transfluent/>. Accessed: 29 February 2016.

Thinking Highways. 2015. Kapsch Trafficcom expands its portfolio with acquisition of smart parking provider Streetline. URL: <http://thinkinghighways.com/kapsch-trafficcom-expands-its-portfolio-with-acquisition-of-smart-parking-provider-streetline/> Accessed: 19 December 2015.

Titman, S., Keown, A. & Martin, J. 2011. Financial Management. Principles and Applications. 11th ed. Pearson Education. Boston.

Tukiainen, S., Mattila, J. & Koria, M. 2014. Finpro charging system and experience. URL: <http://www.tisibenchmarking.org/BMLayouts/GoodPracticeLibrary.aspx>. Accessed: 28 January 2016.

Työ- ja Elinkeinoministeriö. 2016. TEM konsernin toimijat. URL: [https://www.tem.fi/ministerio/tem\\_konsernin\\_toimijat](https://www.tem.fi/ministerio/tem_konsernin_toimijat). Accessed: 19 February 2016.

Työ- ja Elinkeinoministeriö. 2016. URL: <https://www.tem.fi/ministerio> Accessed: 3 March 2016.

Työ ja Elinkeinoministeriö. 2016. Yritysten yhteishankkeet ja niiden tuki. URL: [https://www.tem.fi/yritykset/yritysten\\_kansainvalistymisen\\_edistaminen/yritysten\\_yhteishankkeet\\_ja\\_niiden\\_tuki](https://www.tem.fi/yritykset/yritysten_kansainvalistymisen_edistaminen/yritysten_yhteishankkeet_ja_niiden_tuki) Accessed: 2 February 2016

United Nations Conference on Trade and Development 1998. World Investment Report. [http://unctad.org/en/Docs/wir1998\\_en.pdf](http://unctad.org/en/Docs/wir1998_en.pdf). Accessed: 26 November 2015.

USA.gov. Branches of government. URL: <https://www.usa.gov/branches-of-government/#item-37562>. Accessed: 5 February 2016.

USC Libraries. 29 March 2016. Limitations. URL: <http://libguides.usc.edu/writingguide/limitations>. Accessed: 1 April 2016.

U.S. Department of Commerce. 2008. Trade Finance Guide. A Quick Reference for U.S. Exporters. URL: [http://trade.gov/media/publications/abstract/trade\\_finance\\_guide2008desc.html](http://trade.gov/media/publications/abstract/trade_finance_guide2008desc.html) Accessed: 15 March 2016.

U.S. Department of State. U.S. Visas - Visa wizard. URL: <http://travel.state.gov/content/visas/en/general/visa-wizard.html>. Accessed: 2 February 2016.

US Market Access. 2016. URL:<http://usmarketaccess.com/go-global-program/>. Accessed: 8 January 2016.

United States Trade Representative (USTR). URL: <https://ustr.gov/>. Accessed: 14 February 2016.

Upcounsel. 2016. San Francisco Business Law Report. URL:<https://www.upcounsel.com/business-attorneys-san-francisco-ca#law-report>. Accessed: 23 January 2016.

Van de Ven, A.H. 1993. The development of an infrastructure for entrepreneurship. *Journal of Business Venturing*. 02/1993. URL: [https://www.researchgate.net/publication/222891515\\_The\\_Development\\_of\\_an\\_Infrastructure\\_for\\_Entrepreneurship](https://www.researchgate.net/publication/222891515_The_Development_of_an_Infrastructure_for_Entrepreneurship). Accessed: 2 March 2016.

Veronmaksajat. 2015. Julkiset menot. <https://www.veronmaksajat.fi/luvut/Tilastot/Julkiset-menot/>) Accessed: 6 February 2016.

Veronmaksajat. 2015. Julkiset menot. <https://www.veronmaksajat.fi/luvut/Tilastot/Julkiset-menot/>) Accessed: 6 February 2016.

Wall Street Journal (WSJ). 16 December 2015. Hilsenrath, J. & Leubsdorf, B. Fed raises rates after seven years near zero, expects 'gradual' tightening path. URL: <http://www.wsj.com/articles/fed-raises-rates-after-seven-years-at-zero-expects-gradual-tightening-path-1450292616>. Accessed: 20 February 2016.

WeWork. 2016. URL: <https://www.wework.com/>. Accessed: 29 February 2016.

World Bank Group. Doing Business 2016. URL: <http://www.doingbusiness.org/data/exploreeconomies/united-states/#close>. Accessed: 12 February 2016.

World Bank. Trade (% of GDP). URL: [http://data.worldbank.org/indicator/NE.TRD.GNFS.ZS?order=wbapi\\_data\\_value\\_2014+wbapi\\_data\\_value+wbapi\\_data\\_value-last&sort=desc](http://data.worldbank.org/indicator/NE.TRD.GNFS.ZS?order=wbapi_data_value_2014+wbapi_data_value+wbapi_data_value-last&sort=desc). Accessed: 12 February 2016.

World Economic Forum. 2014. Entrepreneurial ecosystems around the globe and early-stage company growth dynamics. URL: <http://reports.weforum.org/entrepreneurial-ecosystems-around-the-globe-and-early-stage-company-growth-dynamics/wp-content/blogs.dir/34/mp/files/pages/files/nme-entrepreneurship-report-jan-8-2014.pdf>. Accessed: 17 February 2016.

World Trade Organization. 13 March 2015. United States Trade Policy Review, report by the secretariat. URL: [https://docs.wto.org/dol2fe/Pages/FE\\_Search/FE\\_S\\_S006.aspx?Query=\(%20@Sym-](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(%20@Sym-)

bol=%20wt/tpr\*%20or%20press/tprb/\*%20)%20and%20(%20@Ti-  
tle=%20united%20states%20)&Language=ENGLISH&Context=FomerScript-  
edSearch&languageUIChanged=true#. Accessed: 16 February 2016.

Y Combinator. February 2016. Startup documents. URL:<https://www.ycombinator.com/documents/>. Accessed: 26 February 2016.

Yin, R, K. 2012. Applications of Case study research. Sage Publishing Ltd. UK. URL:  
[http://www.sagepub.com/sites/default/files/upm-binaries/41407\\_1.pdf](http://www.sagepub.com/sites/default/files/upm-binaries/41407_1.pdf). Accessed: 28  
March 2016.

500.co. URL: <http://500.co/accelerator/>. Accessed: 26 February 2016.



## Appendices

### Appendix 1. Assessment of selected incubator and accelerator programs

In order to assess the different startup ecosystem organizations such as incubator and accelerator programs, it is necessary to start by discussing the determinants of a good (partnering) opportunity. To begin with it is important to remember what are the needs of Witrafi (i.e. capital, internationalization, networks), versus what the different organizations can provide for Witrafi.

Some partnering opportunities may currently be of reach for Witrafi, but can open up in case Witrafi decides to incorporate in the United States or receives funding from other sources. Conditions such as the start-up having to operate in a certain industry exist which rules out some opportunities altogether. Additionally, programs often have highly competitive selection processes, according to Fortune article (Shoot, B. 2014) one popular incubator averages an application per minute. On top of that, although incubators and accelerators can be a faster way to the U.S. market, participation is rarely free. Seed accelerator programs require an equity stake in return for their services, which may be unattractive option for Witrafi. Non-profit programs too, have different types of fee structures to cover the costs. (InBIA)

The task of naming and assessing all candidate programs would be outright impossible as there are so many of them. Thus only few example programs are introduced and used as a reference for further discussion. Some of the more popular accelerator programs such as the well-known 500 startups, Y Combinator and TechStars were left out from in-depth analysis as they are hardly the most realistic programs for Witrafi.

InBIA has combined a list of questions that entrepreneurs should ask when they are screening for incubators. The list of questions below is a slightly simplified version of InBIA's list and was used as a reference for analysis. The selected incubator & accelerator programs were selected based on their reputation, industry focus and international experience.

What is the track record?

- How old is the program?
- Does the program have any successful graduates that have succeeded independently?

#### Graduation policy

- What is the program's graduation policy? How does exit from the program happen?
- What are the rules of the program?
- How long does the program last on average?

#### Qualifications of the staff

- Who are the managing staff and how long have they been with the program?
- How involved is the staff on site?
- Have they been successful entrepreneurs themselves?
- Do they develop the program according to the best practices? (InBIA)

#### **Founders Space (incubator+accelerator)**

Founders Space is a top ranked (Forbes & Inc. magazines) program offering both incubator and accelerator services in San Francisco. Founders Space is a relatively new organization, it started operating in 2010 and had its accelerator program started in 2014. So far the program has not produced 'unicorns' like Uber, but it has a good reputation among international startups (Hendricks 2015). According to Founders Space they have worked with hundreds of startups and majority have been able to raise capital, although no guarantees are made.

Founders Space accelerator+incubator program starts with intense 2-4 week phase after which the pace calms down. After the first phase there is a demo day and the intensive phase ends, the startups are free to use Founders Space services and attend events for up to 12 months. The program is a generalist when it comes to accepted startups, but the selection process is competitive and only accepts 5-20 startups per quarter. The cost of program is less than most other accelerators charge and depends on the startup's development stage. Typically Founders Space charges 5% or less in equity, and startups have the option of paying a fee if they don't want to give out equity. 1% is minimum charged.

Founders Space is founded and managed by Steve Hoffman and Naomi Kokubo. The couple has extensive entrepreneurial experience, Hoffman is also an active angel investor himself. The program mentors come from various business backgrounds and the program boasts an extensive investor network. The mentoring is most intense during the first 2-4 weeks of the program and startups are entitled to one or two days of one-on-one mentoring. Founders Space's approach to accelerator program is a bit different from the traditional programs as the intensive phase is shorter but the program length can be much

longer depending on startup's needs. Founders Space also has a 3 month online incubator program which is complimentary to the program participants.

For Witrafi Founders Space could be an option because it has a proven record of working with international startups and is also ranked highly among all programs. Founders Space can be less expensive option and its program length is flexible yet it still offers all the necessary benefits such as networking and free co-working space. On the negative side the program may not be able to provide industry specific advice for Witrafi and at least some of the mentoring services seem to be aimed at startups that are in earlier stages than Witrafi. Also, the location of the program is in San Francisco, and for Witrafi location nearer to the Valley would arguably be more beneficial.

(FoundersSpace 2016)

### **Plug and Play Tech Center (PnP) (Seed-accelerator)**

Plug and Play Tech Center, located in Sunnyvale, Silicon Valley is one of the biggest tech campuses and business accelerators in the world. PnP was founded in 2006 and today provides several accelerator programs, seed funding, office space, data centers and related services to startups of all stages. PnP's CEO is Saeed Amidi, a well-known entrepreneur and angel investors. He is joined by extensive group of managers and advisors. Over the years PnP has worked with or invested in a number of world famous tech startups such as Dropbox and PayPal. Currently PnP campus hosts some 350 startups. (Angel.co)

From Witrafi's line of business PnP has industry specific Internet-of-Things program which could help Witrafi in internationalization and open doors to a network of investors and partnering opportunities. The IoT program runs twice a year and lasts for 12 weeks. The participants have access to all the usual accelerator services and potentially to funding. The program accepts 25-30 startups from around 2000 applicants, so the selection process is highly competitive. The cost of program is not easily available but according to Tekes PnP accelerator programs cost between 12000-18000 euros. What sets PnP's program apart from many other programs is that its accelerator programs have formal links to major corporations such as Mercedes, Bosch and Fujitsu. The corporate partners co-select the participating startups and are involved in the mentoring. (Angel.co)

Of course, for a startup being able to join PnP's program is statistically improbable and for Witrafi the cost may be too high. PnP does not publish the terms of its programs but 5% equity for seed funding is quoted in various sources. However, PnP is not only interesting option because of its accelerator programs, but also because of its other services. Finnish company Transfluent participated in "Tekes New Innovative Enterprises"-program and

later expanded to Silicon Valley where it rented office space from PnP. According to Transfluent CEO the cost of rent is reasonable 650\$/month and the terms are favorable. He also suggests that the location of PnP's campus is better for many B2B startups than the co-working spaces located in San Francisco. (Tekes 2016 Case Transfluent)

### **Alchemist accelerator (seed-accelerator)**

Alchemist accelerator was established in 2012 as a first accelerator that specialises strictly on B2B and B2B2C start-ups. For that reason it is known as an enterprise accelerator and heavy emphasis is given to relationship development between start-ups and corporate customers, market validation and sales. Alchemist is backed by corporations such as Cisco Systems, Siemens and Salesforce. The program has produced some successful graduates, and more than half have gone to raise over a million dollars, three have been acquired so far.

Alchemist has an Internet-of-Things program which is suitable for Witrafi. The program has a competitive selection process, 12 start-ups are selected for the program which lasts for 6 months. The cost of program amounts "a single digit common equity", on average 5%. There is also a tuition fee, which however can be paid with a convertible note provided by the program. The average cash investment given to the start-ups is 36,000\$. The participants can choose which services they want to use, everything but demo day is optional. The program offers all the regular accelerator services such as mentoring, roundtables and social events. The program also organizes one-on-ones with prospective customers and investors and provides customer targeted mentoring. The start-ups have access to co-working spaces located in San Francisco, Palo Alto and Menlo Park subject to availability.

Alchemist is led by a team of professionals with executive level experience. The program is ranked fifth best in the U.S. by seedrankings (2014). Based on reviews found from the internet the participating start-ups have been very satisfied with the program. For Witrafi Alchemist could provide perhaps the best tangible connections to corporations and more technical advice and market validation than some of the other accelerators. On the negative side, the program does not seem to be as intensive as some of the others and a lot depends on the start-ups' own effort. The length of six months ties the start-ups for a longer period of time and the program also has stricter terms than other programs. The program also requires that the start-ups incorporate in the U.S. though they are willing to pay the fees and help with the process. Some of the other requirements of the program are likewise stricter but at least the program is transparent about its terms.

(Alchemist Accelerator 2016)

### **U.S. Market Access (US MAC) (incubator+accelerator)**

US Market Access Center is a non-profit technology accelerator based in Silicon Valley. The program first started in 1995 and has since worked with over 1,400 companies wanting to do business in the United States. When the organization was founded it collaborated with the city of San Jose and the local university, but the relationship has later been terminated. As of now US MAC gets its funding from foreign seed funds and governments. The current program which is called "Go Global Silicon Valley" has been running for four years and according to US MAC over 80 graduates are currently doing business in the Valley.

US MAC's program is somewhat different from the other accelerators as it is foreign funded. There is no applying form in the website and the selection is done in overseas events together by the program and foreign partners. As of now, US MAC does not seem to be active in Finland, although their materials do mention that they have worked with Finnish startups previously. In recent years the program has invested in Baltic and Asian countries. According to one of the founders the program works with 60-70 startups at any given time. The program does not normally take equity from startups, but the cost structure of the program is not transparent.

US MAC's accelerator program is a three step program. First phase is called "Think Big" and it is a 2-3 day program conducted in foreign locations. The program calls the phase "boot camp" and apparently the first phase determines whether a startup is invited to the second phase. The second phase lasts for 8 weeks, of which the first 6 weeks take place in foreign location and last 2 weeks in Silicon Valley. The second phase is used to further develop and validate the business model and includes customer meetings and mentoring. The third step is called "Scale Fast" and is conducted entirely in Silicon Valley. This phase lasts for three months and focuses on signing actual customers, partners and investors. The program provides startups with legal help and necessary support services. In the third step companies have access to co-working office space, the program collaborates with RocketSpace and SiliconValleyPad.

US MAC's program is a comprehensive accelerator program for international startups. It is led by two co-CEOs Chris Burry and Alfredo Coppola. Burry has entrepreneurial experience while Coppola comes from management consulting sector. About third of the program mentors are business angels, third have corporate background and the rest are entrepreneurs. The program is longest running tech accelerator in Silicon Valley and the fact

that it works with governments creates credibility. The track record of program is good, especially with foreign startups. For Witrafi it might be difficult to join the program as it doesn't seem to be actively working with Finnish government agencies. Another downside is that the program is not specialized and the costs are not transparent. However, the program's website mentions other services such as virtual office and inquiring about the services is always possible. (US Market Access 2016)

### **Silicon Valley Catalyst (seed-accelerator)**

Silicon Valley Catalyst is a new accelerator that combines Nordic resources with Silicon Valley experience. The program was jointly launched by Norway's StartupLab, Valley based MAD-partners and venture capital fund Garage Technology Ventures in June 2015. For a Finnish based startup Catalyst accelerator is interesting because Pekka Pärnänen, founder and CEO of MAD-Partners is involved in the program. Mr. Pärnänen is a former head of Finpro's Silicon Valley function and has extensive experience from business development and tech fields. He is one of the best known Finnish persons living in the Silicon Valley.

Because Catalyst is such a new program there is no graduates yet and other than what the website there is very little information available. Garage alone has had accelerator programs previously, but the new program is separate from those. The credibility of program is based solely on the team behind it but that is not necessarily a deal breaker, considering that the team is so experienced. Garage for example is headed by well-known Silicon Valley personalities, including Guy Kawasaki and Bill Reichert. StartupLab on the other hand is Norway's leading incubator program.

The Catalyst lasts for three to six months and the program follows a customized pattern, meaning that it has predetermined modules but mentoring is tailored for the needs of each startup. The program offers business development, validation, customer acquisition and scaling. The StartupLab invests 100,000\$ through standard convertible note and each startup is required to grant "a few percent" of equity to Garage. In addition the cost of participation is 8000\$ to 12000\$ a month and office space is organized from Nordic Innovation House for a nominal fee. The program does not disclose how many applicants it has received or how competitive the selection process is, but the requirements can be found from the program website.

Catalyst is an interesting program, and it claims to be more customized than other accelerator programs. On the positive side, the program organizers have a good reputation and are experienced in technology field. Having the Nordic dimension could be beneficial as

there is lesser cultural barriers involved. On the negative side, the program seems to be somewhat costlier than other programs and there is no proven record as of yet. (Garage Silicon Valley Catalyst 2016)

## **Appendix 2. Interview with Suomela, H. Finpro.**

Most of the transcript is written by author based on phone conversation with Suomela (26.1. 16:00-16:50), some parts are also from the email correspondence few days prior.

### **The current government program has named “advancing SME internationalization” as one of its key projects (kärkihanke). What does that mean in practice?**

In practice the fact that Finnish government has made advancing SME internationalization a key priority does not show in any way. It does however indicate that the government has realized the importance of it and feels positive about it. For Team Finland employees and customers alike it means also that the funding position of Team Finland is stable and guaranteed until foreseeable future.

Team Finland’s thematic priorities are likewise less visible in daily work, but they more or less guide the selection of current and future Team Finland growth programs. Growth programs aim to activate and inspire the firms operating in certain sectors and provide counselling and guidance. Also, TF hosts growth program participants in conferences, exhibitions and trade delegations.

### **How many (approx.) Finnish startups exist in the Silicon Valley? (email)**

In the past, when companies started their U.S. quest they moved some person to U.S. (or hired someone) and set up an office. It was easy to count how many companies were in U.S. with those kinds of setups. Nowadays the companies set up a virtual office deal with some local co-working place and one of the founders or execs are visiting in Silicon Valley (or U.S.) every now and then. On their web site one can find a U.S. address and a phone number but those could be very well just virtual offices (read: enhanced P.O. Boxes)

But in short there are more than 30 startups from Finland in Silicon Valley currently which have people more or less permanently and an office address there. The number of companies just with virtual office are even more numerous. Also it depends a little how one defines startup.

### **Have those startups collaborated with Team Finland or used some of TF services?**

A number of them yes (have either used TF services in the past or received advice or guidance from TF team), but in some cases the amount of services / guidance / advice has been minimal. (email)

**How can Team Finland help Finnish SMEs in internationalization? What are the benefits?**

Finpro's resources in Silicon Valley are limited and all firms are entitled to have equal time. Finpro is in process of hiring a second consultant to Silicon Valley. Also, many more services are provided in Finland.

In Silicon Valley Finpro does not conduct research for the firms or provide firm specific consultation, but if needed they can recommend private consultants (paid services). Finpro has excellent local knowledge of Silicon Valley and can offer a wide network of contacts and references. Mr. Suomela has worked with so many different firms that he has developed understanding of what works and what doesn't (best practices). He can also "connect the dots", saving new firms the time of creating networks from the ground.

**How much do the services cost?**

Team Finland salaries are paid by Finnish government (Ministry of Economy and Employment) so the services are free of charge (excluding certain growth program membership costs). Of course indirectly paid via corporate taxes.

**How important is it to have a physical presence in Silicon Valley in order to achieve the benefits the location can offer?**

Very important. Permanent on-location presence increases credibility considerably. In the U.S. business environment it is not possible to say: "I am going back to Finland next week, talk to you later", because often times second and third meetings are needed to create trust. Continuity is important! Also, often things move forward faster when a meeting can be agreed right away.

In some cases virtual office can be enough to assert that the firm is serious and committed. "Shows that the firm is available", but even then it might be difficult to send an employee to foreign location in short notice.

Suomela recommended B1-visa to begin with, it is valid for 6 months and can be extended. Other visas require more time, resources and lawyers' help. Typical acquiring process lasts for 4 months.



**How important is networking in the U.S. business environment?**

Very important. Email is not sufficient for business decisions. Personal relationships are needed, even phone operators won't connect unless correct person can be named.

**What are some of the most common challenges Finnish companies face in the U.S. market?**

Depends. (I can explain more over the phone)

In general: Business model changes, ecosystem differences, underestimating time needed, time zone differences (/remoteness to Finnish HQ)

**Can you give any ball-park figures how much would the expansion cost?**

Depends.

*Other issues such as start-up ecosystem were discussed but the author was unable to write everything down while conversing on the phone.*

### **Appendix 3. Interview with Klyszeiko, M. Amcham Finland.**

Parts of the transcript from Skype interview with Klyszeiko 27.1.2016 10:00-10:45.

#### **What does Amcham do? What is your role in the organization?**

Amcham Finland is a non-governmental, non-profit business-to-business network with offices in Helsinki and New York. Amcham supports the business development and growth of its membership organization (~375). It provides a wide range of business services, networking opportunities and programs with the aim of improving the market conditions.

Mike Klyszeiko is the founder and director of LaunchpadUSA program in Amcham. The program supports the growth and development of Finnish SMEs wanting to do business in the U.S. It helps the membership organizations to break into the market, helps in scaling of the business and gives guidance through the process of establishing the market presence.

#### **Who are you working with? What kind of networks does Amcham have in the U.S.?**

Amcham membership organizations come in all sizes from a startup to big multinational corporations. The recent founding of New York office has improved Amcham's connections in the U.S. even more, and Amcham can offer networks from all fields of expertise whether it be legal advice, HR, banking, business development, investors or customers.

Amcham connects the membership organizations with each other, so even a small SME can partner up with a big corporations e.g. Kesko or Pfizer. Amcham also offers visibility to the smaller companies through its social media accounts by writing articles about its membership organizations. The increased visibility can improve business significantly, as an article has a reach of thousands of Vice President level decision makers.

#### **Why is it important for a Finnish company to network before entering the U.S. market?**

Networking is very crucial aspect of doing business in the U.S. Having the right kind of networks, introduced at the right time can make a difference between success and failure. Mr. Klyszeiko discourages hiring outside consultants and emphasizes that for companies it is important to go to the U.S. themselves. Klyszeiko said that Finnish business networks in the U.S. are far-behind when compared to countries such as Sweden and Israel. He also said that immediate accessibility is needed and that Finnish companies need to adapt to the U.S. business culture.

Klyszeiko says that attending conferences, exhibitions etc. are becoming less important networking venues.

### **How can Amcham help Finnish SMEs to enter the U.S. market? What are the benefits and what does it cost?**

(In addition to the services discussed earlier) Amcham helps in “laying the foundation” for successful entry. Amcham provides targeted networking and advice. The annual membership fee is 3,500€ which gives access to the services and programs. Amcham has no limits in program lengths (many others have 12 week programs etc) and encourages membership organizations to actively stay in contact with them. Mr. Klyszeiko said in the interview that he sees internationalization as a longer process and that is also why he doesn't see the value in short-programs.

Mr. Klyszeiko said that government funded delegations and programs are often old-fashioned and ineffective especially when it comes to U.S. business environment, but also that they might make more sense in some other countries such as China.

Klyszeiko used Amcham's collaboration with Idean (a successful Finnish company in U.S.) as an example of the benefits Amcham can offer.

### **Is there any rule for timing of internationalization?**

There isn't necessarily any time constraint, it depends on the case. Klyszeiko personally thinks that it is better if the company has established sales in the domestic market. Those sales can be used as a reference in the U.S. market and help in determining 1. Segmentation, 2. Size of the customer companies and 3. Best locations.

### **Is it worthwhile to incorporate and what would it cost?**

Klyszeiko discourages needless incorporating but acknowledges that in certain situations it is necessary. As a rule, a firm needs to incorporate an U.S. entity only when there is a clear business need; a firm wants to invest into the U.S. or attract VC, needs visas for employees, hire local employees, wants to rent premises or needs to open a bank account. Klyszeiko said that a common way is to first establish a virtual office, which does not require U.S. inc. Amcham can offer virtual offices from attractive location in New York. Amcham Virtual office offers U.S. mail address, phone numbers and limited usage of premises for meetings. Attractive location is important for credibility: Klyszeiko told how some years ago a number of Finnish startups had virtual offices in very bad location in Silicon Valley and it hurt their business. Also, a U.S. businessman is not going to call +358 number.

According to Klyszeiko a lot can be done with visa-waiver and normal B1 visa. For example meetings and “road shows” are possible as is general market development.

(We didn't discuss costs, although it is quite clear that it is not expensive to incorporate)

**Are American companies open to co-operate and work with Finnish companies?**

They are. Finnish American trade relations are good and Finnish companies have dependable reputation. The other way around American companies sometimes “talk big” but are less dependable. Klyszeiko says there is no real liability of foreignness, it is the product/service that matters. However he advises companies to “look local, sound local”. Website and marketing materials have to be written in perfect English to increase credibility.

*Other issues were discussed as well. The transcript presented covers the questions that were prepared beforehand.*

#### **Appendix 4. Interview with Siitonen, S. Witrafi**

Available upon request from the authors.

**Appendix 5. Interview with Kriman, A.**

Available upon request from the authors.

## **Appendix 6. Notes of Siitonen, S. visit to Silicon Valley**

Available upon request from the authors.

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