Stockholm Valley; the new Silicon Valley?

- A qualitative research study of organizational resources and capabilities obtained through the Stockholm cluster to create international competitiveness for tech startups.

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Abstract

The purpose of the thesis was to identify the tech startups main organizational resources and capabilities received from the Stockholm cluster. Correspondently, how those encourage to sustained competitive advantage internationally. The aim was to ensure a deeper understanding with a qualititative research method with a multiple case study and an abductive approach. The empirical findings were based on seven case companies that were committing within the tech sector and were internationalized. Further, the literature review takes off with the definition of the segment, namely the tech startups followed by industrial cluster, the network - and social network theory, the Resource-based view with concertation on the different firms’ resources, the VRIO framework, and capabilities, and thereby internationalization including international competitiveness. The conceptual framework has illustrated the correlation between investigated variables, mentioned above. Moreover, the empirical findings chapter was constituted of primary data presented by the seven companies. The analysis was established on the basis of the three voices, which are theoretical, empirical and authors to examine contrast and correlation with each other. The analysis part was followed by a conclusion chapter that presented the main findings/conclusions, thus answered the research question. In addition, the chapter provided with implications, , limitation and recommendations for future research.

The findings displayed that the main organizational resources and capabilities obtained from Stockholm consist of human and financial capital, alliances and relationships, innovation/technology and reputation. However, they are only three of them that bring sustained competitive advantage, which are the human capital, alliance and relationships, and reputation capability.

Key words

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1 Introduction

Following chapter contains the background, problem discussion, research questions and the purpose of the thesis. The introduction provides with an understanding of the thesis direction and research concentration and thus with limitations. In the final part of the chapter, an outline is conducted to create a visualized perspective regarding the thesis’ parts.

1.1 Background

There are various types of geographical areas found globally that have a considerable large impact on firms’ straights (Hollensen, 2017), such as tech clusters in the US (Feldman et al, 2005) and geographical proximities of digital health clusters in the UK (GOV.UK, 2017). Additionally, there have been various studies made on the subject concerning industrial cluster’s impact on firms’ competitive advantages. Researchers such as Porter (1990), discussed in regard to clusters impact on firms that the national environment influences them in the international competitive market, by various factors based on domestic circumstances. Further, Fjellström and Osarenkhoe (2017) explained that the interconnected firms maintained within the same field in a precise area can even promote and stimulate the effect on the international competitive market.

The tech cluster of Silicon Valley in the US is the most famous geographical location on Earth that provides sizeable enterprises within the tech sector, such as Google and Apple (Forbes, 2015). Silicon Valley is an interesting and famous cluster within the high-technology sector and is actually nominated as the number one sphere in the world of creating the most so-called Unicorns. A Unicorn is defined as a startup firm with a revenue of over one billion-dollar within ten years after inception (Chen, 2017). Undoubtedly, Silicon Valley is most likely an interesting area with large tech potentials. However, there has been plenty of news during recent years regarding similar tech clusters that have taken part of the international competitiveness of having great tech companies. Forbes (2015) attached an article made by the university of Pennsylvania Wharton. In the article, the authors wrote regarding the Swedish capital, Stockholm, as an interesting tech cluster with large potentials such as Silicon Valley, referred to as the Unicorn Factory;
“(...)After Silicon Valley, the Swedish capital produces the highest number of so-called “unicorns” per capita than any other global city. With a population of less than 900,000, Stockholm has birthed prolific global brands like Skype, Spotify, Minecraft and Candy Crush Saga (...)” (Forbes, 2015).

Stockholm has received large governmental support for being such a high-tech hub. The support from the domestic factors, e.g. including the infrastructure, free education and e.g. the large open fiber network (StockholmBusinessRegion, 2017), have definitely improved the cluster in the context of technology.

1.1.1 The Tech Hub
Stockholm has become famous for its tech cluster in regard to especially the high-tech development (StockholmBusinessRegion, 2017). In accordance with Invest Stockholm (2019), the city generates important tech communities within the European region and some of the fastest growing startups. The IT sector in Sweden is remarkably well-developed and grows fast, especially in the Stockholm region where approximately 25,000 tech firms are located. This is more than half of all IT companies in the whole nation (Investstockholm, 2016), which explains the high number of tech startups in the area. Stockholm involves various professions and activities, such as computer engineering, networking, telecommunication and software/hardware and IT services. The employment density of information and communication technology (ICT) and digital startups in Stockholm established in 2008 or later can be seen in Appendix A. They are in accordance with a startup, they are defined as in the starting phase of developing its growth (Knight and Cavusgil, 2004), were it is common that the entrepreneur is still a part of the firm as e.g. the CEO. In addition, a small-medium sized enterprise (SME) in terms of staff members, is referred up to 250 employees (European Commission, 2019).

Further, the technological assets that the capital possess generates the city similarly to an industrial cluster with high-tech involvement, by observing a large number of tech startups and firms of tech in the geographical area. The concentration of interconnecting with each other, suppliers, and institutions, results in a cluster with firms in a specific field (Morosini, 2004). In addition, being part, for instance, of a particular industrial cluster can even affect the competition by increasing, for instance, the productivity of the firms, driving innovation, and stimulating to new businesses in the specific field (Porter, 1990).
1.1.2 Competitive Advantage with Resources and Capabilities

Competitive advantages are based on conditions that contribute organizations to become preferably for customers, then for a competitor within the equal business section (Investopedia, 2019). According to Barney et al (2001), to achieve this success should organizations focus on its own resources, including the capabilities. The organizational resources possess skills that function as elements which firms use on a daily basis in order to generate a certain service or product. Contrarily, capabilities are collections of these skills, such as e.g. experiences and qualifications (Hollensen, 2017). The connection between a firm’s desire to achieve competitive advantage and its own resources and capabilities is then correlated, hence, a strategy for organizations in the sense that they have the power of using them.

In addition, an organization can obtain sustained competitive advantages on the basis of its own resources and capabilities. The definition of the sustained asset is that it is a long-term condition in competitiveness against competitors. In result, the more sustainable the competitive advantage is, the harder it is for competitors to reach the advantage (Investopedia, 2019). To gain the sustained asset, Barney et al (2001) have illustrated with theories in their studies within the use of optimizing organizational resources and capabilities from the Resource-based View (RBV). Further, researchers have mentioned the support from the VRIO framework, a model that discuss each belonging in an analysis (Barney and Hesterly, 2010; Alchian et al, 1950) The use of the framework contributes to help firms identify their strongest versus respectively weakest areas and find the most valuable resources and capabilities, in comparison to market competitors (Hollensen, 2017).

1.3 Problem Discussion

Feldman et al (2005) mentioned that the Silicon Valley as an industrial cluster has been examined in various studies throughout e.g. applied into models of high-tech industries. The cluster is considered to be a greatly developed tech cluster for entrepreneurial ideas. There is however, according to the authors, there is a limited understanding of the emergence of innovative clusters. In accordance with industrial clusters and the connection to competitive advantages of firms’ resources, Porter (1990) claimed that they are correlated. An organization’s resources and capabilities emphasize the main parts of the foundation for a firm’s competitiveness, and with the support from the cluster, perceives them with even more benefits (Porter, 1990). This is not stated as mainly on the national market; industrial clusters tend to stimulate a firm's international competitiveness. As mentioned by Barney et al (2001), organizations can develop into strong competitors both nationally and
Internationally with the use of organizational resources and capabilities. Furthermore, Fjellström and Osarenkhoe (2017) claimed that clusters can promote competitive advantages internationally by e.g. the networking between firms being settled in the same geographical area.

Countries differ from each other and it is therefore interesting to observe how organizations within an industrial cluster and field take advantages of the resources and capabilities from the localization in order to join their competitors internationally. By that being said, the issue regarding a cluster’s characteristics is indeed an interesting topic to examine. In order to investigate how, in this case, the Stockholm cluster’s, impact on tech startups organizational resources and capabilities in obtaining international competitiveness. The fact that the Stockholm cluster produces hundreds of tech startups (StockholmBusinessRegion, 2017), make the authors wonder upon the specific organizational resources and capabilities from the cluster. Sweden is a small country with an open economy and with high dependence on foreign policy (Tillvaxtanaly, 2009), which results in that firms sooner or later will be forced to expand internationally and front extended foreign market. This study is therefore made on international competitiveness to constitute an essential part of the firm's activities. International competitiveness will be required to reduce the risk of out-competing and secure a continuously revenue streams. Survival and growth on the market occur only after that firms identified, utilized and directed its resources and capabilities. In regard to clusters, it argues that localizations become an integral source of internal competitiveness (Fjellström and Osarenkhoe, 2017) that even supports SME: s to survive on markets (Morosini, 2004).

The lack of previous research studies of the Stockholm cluster makes the research area more complex. Research of the new phenomenon, the Unicorn Factory of the Stockholm region, has been limited by the access of data which has put a constrain for the authors to be able to investigate the precise cluster. Hence, an investigation of the Stockholm cluster’s characteristics and types of resources and capabilities applied on tech startups are needed in order to identify the impact of them. There have been previous studies that have examined tech startups organizational resources and capabilities in the context of competitive advantages, as e.g. human, innovation and alliances resources (Ross et al, 1996). However, the combination of applying these resources and capabilities on a specific segment in the Stockholm cluster with the context of achieving international competitiveness have yet not been examined.
The authors have observed other researches’ studies regarding industrial clusters and have, therefore, got a definition of it. Nevertheless, the lack of previous studies has captured the researcher’s curiosity, one of the reasons behind the selection of the topic to the study. In regard to a firm’s resources and capabilities and international competitiveness, there were more studies made on these subjects. However, the combination of using them both in the context of industrial clusters and the segment of tech startups in Stockholm seemed to be a gap in previous literature.

1.5 Research Questions

| How do the tech startups main organizational resources and capabilities obtained from the Stockholm cluster encourage to sustained competitive advantage internationally? |

1.6 Purpose

The thesis’ purpose is to acquire an understanding regarding Stockholm’s tech startups and identify the main organizational resources and capabilities that have been acquired from the industrial cluster. Further, with the precise organizational resources and capabilities, the authors aim to investigate how they encourage sustained competitiveness internationally for tech startups. Lastly, the thesis provides valuable and practical knowledge that can facilitate and act as a guideline for Stockholm’s tech startups regarding sustained international competitiveness.

1.7 Delimitation

The thesis will mainly focus on tech startups within the region of Stockholm, the Swedish capital. Hence, the investigation of industrial clusters will not be applicable to exterior parts of the city.
1.8 Outline
This is a comprehensive outline concerning the included parts of the thesis.

![Outline of the thesis, designed by the authors, 2019.](image)

2. Literature Review

The second chapter reviews the theoretical approach of the thesis. The selected theories provide information for answering the research question. The mentioned theories will, later on, be formalized into a conceptual framework figure, which will illustrate the interconnections of the variables and to explain how they make an impact on each other.

2.1. Tech Startups
An organization’s startup stage is the definition of a new venture that is in its development for entering a market. A broad identification of the initial action for a firm is according to Van de Ven et al (1984), that startups are frequently
sources of innovation and change. As the title entails, “startup”, there ought to be a person behind the initial start of the business, the entrepreneur/founder. Entrepreneurial activities are made by individuals who penetrate startups into developing and the research concerns the focus on the actual founder (Klyver, 2017). Further, the notion “Tech startups” is referred to a startup firm that possesses technological products or services (Knight and Cavusgil, 2004). Additionally, there are plenty of Swedish startups that have tended to internationalize rapidly and early, even within the initial phrase (Halldin, 2012). In regard to a startup’s fast and early internationalization expansion, the terms of Born Globals and International New Ventures (INVs) are relatively new used phenomenon in scholars. Famous Swedish Born Globals include tech firms such as Skype and Spotify (Halldin, 2012). The rather unique definition made by Oviatt and Mcdougall (1996) concerned that a Born Global firm has since the initial inception had a vision of taking part of the global market. INVs concern business organizations that from inception seeks to derive competitive advantages by having sales in various countries.

2.2 Industrial Clusters

An industrial cluster adapts to insights on markets and examines the neoclassical economics with a concentration on the localization advantages (Morosini, 2004). A general conceptual approach for creating clusters is built upon a positive business environment and conditions that involve access to finance and infrastructure, such as upgrading skills, beneficial regulations, and rules, open markets that give access to foreign investment and competition and extended local demand. Further, clusters enable enterprises to receive higher economic performance, productivity, shared knowledge and innovation. They, therefore, tend to generate sustained competitive advantages against market competitors (Ketels et al, 2008). A cluster’s characteristics can differ from region to region. However, the greater linkages between common denominator among companies are, the more can cluster be developed. For instance, the common characteristics could be economic linkages, geographical closeness, and institutional fabric. Further, in Appendix B is a chart that illustrates a cluster’s characteristics more precisely.

There are various types of clusters among all high-technology clusters. High-tech localization implies the production of technologically-advanced, changing and sophisticated products (Keeble and Wilkinson, 2017). In well-developed industrial clusters, which are often found in advanced economies, firms tend to demonstrate a higher scope of knowledge integration combined and tend to emphasize innovation substantially. The competitiveness of a cluster rest on three key elements, (1) optimization of production of
cooperated firms or industries, (2) increased access to innovation and productivity growth, (3) promotion of new startups to boost innovation and entrance to the cluster (Porter, 1990). In addition, there are some highlighted key pillars behind a firm’s decision to localize in clusters. Firstly, due to geographical proximity generates entrepreneurs with taking advantage of skilled workforce. Secondly, the concentration contributes to easier access to the market, product and technological knowledge between the actors involved and leads to the creation of valuable innovations (Morosini, 2004). In order to build a framework and construct a strong cluster identity, economic and industrial sustainability requires a developed social fabric to obtain communication exchange and integration of knowledge. A cluster requires to establish close networks with the social communities (Pyke et, al, 1990). Further, Morosini (2004) claimed that engagement in an industrial cluster contributes SME to create opportunities that increase enterprises to survive and bring competitiveness on domestic, international and global markets.

A common issue within clusters is the manage to balance between advantages, disadvantages, cooperation and competition (Gordon and McCann, 2000). The most common issue within geographical proximities is the competition of obtaining specialized labor force and common market intelligence. This concerns covering information regarding market opportunity and penetration and copying of product innovation and technology among actors (Morosini, 2004).

The so-called knowledge spillovers could be perceived both positively and negatively for a firm. In circumstances of knowledge inflows, enterprises can take favorable advantages by knowing, for instance, the market environment. This, in turn, results in access to innovation and contributes to competitive advantages. However, firms can with knowledge outflows lose intangible and intellectual assets (Grindley and Teece, 1997). The perception of advantages versus disadvantages caused by knowledge spillovers seems different in different structures. In the case of high market competition when firms possess small market shares and profit margins, knowledge inflows will be more beneficial for companies in comparison to what they have to lose at knowledge outflows. However, the situation will be the opposite in the oligopolistic industry environment. The structure is characterized by having a few sizeable companies with a high portion of market shares and independence. As mentioned above, in this situation knowledge outflows to a firm's competitors may result in reduced competitive advantage.
2.2.1 The Network Theory and Social Network Theory
Networking within a cluster is a crucial process in order to obtain long-term value creation that results in competitive advantage as well on domestic as international markets (Fjellström and Osarenkhoe, 2017). Firms do seldom singlehandedly need to manage and develop technology, skills and competencies. These are factors that are achievable through collaboration. Further, networking is important for all firms’ independent size, due to that clusters on its own cannot settle advanced issues and constraints confronted by enterprises (ibid).

A network is constructed upon a number of actors that are interconnected. The ties between actors can both be directly and indirectly (Borgatti and Halgin, 2011). The theory has a number of definitions and types (Albrektson et al, 2010). Alm (1996) defines networks as relationships between individuals, objects or processes. Alvesson and Sveningsson (2007) stress networks as external relationships. Networks for Borell and Johansson (1996) imply nodes that produce a structure based on links, where actors involved are not always are connected to each other, hence, the structure may be complex. Further, scholars emphasize that networks exist at several dimensions, both on organizational and individual levels. Within the organizational network, there is additional division of types, among all business networks and strategic networks. Those networks are formal, in comparison to individual networks, and characterized by having leadership, a determined level of competencies and professions, common interest and vision. The network is based on personal relationships (Albrektson et al, 2010). Secondly, the personal networks link to individual networks, social networks, private and professional networks. The first mention implies an informal node between a firm and a knowledge area. The social networks, which are even linked to private networks, are based on people's relationships with their e.g. family members or friends. The employee network is a combination of personal and organizational networks and defines as an external relationship that is created on a personal and/or organizational basis (ibid).

2.3 The Resource-based View
The resource-based view seems to be a powerful approach in strategic management theory (Barney et al, 2001). Barney (2001) and (Grant, 1991) have stressed the importance of internal resources for a firm to achieve a competitive advantage. Moreover, the theory emphasizes that a firm's competitiveness is achieved on the basis of a combination of resources and capabilities (Pesic et al, 2013). The theory is applied on both manufacturing
and service-based firms, however, in emphasizes more on produced based firms with e.g. cost-reduction and effectiveness (Brahma and Chakraborty, 2011). A central notion within the theory is the sustained competitive advantage, which refers to the implementation of a value creating strategy that is not been adapted paralleled by competitors and when then opponent fails to copy the benefits of the specific strategy (Barney, 1991). Sustained competitive advantage may not be permanent, instead it can guarantee a long-term favorable performance over market competitors. The researcher points out three categories of resources, which are physical capital resources, human capital and organizational capital assets. The resources can be both tangible and intangible, in the shape of managements competencies, organizational procedures and practices, reputation and brand equity, knowledge and information (Barney et al 2001). In detail, the physical assets are referred what firms possess of the physical equipment and plant. The human resources stress the competencies of workforce, such as experience, relationships and training. The organizational capital resources are connected to planning, as well as formal as informal, and internal systems.

Further, within the resource-based view, there are two perspectives on obtaining sustained competitive advantage, which are that resources need to be (1) heterogeneous; and (2) immobile. Sustained competitive advantages cannot occur when strategic resources are found among competitors in an industry and are highly mobile. The resources are therefore forced to be immobile and heterogeneous. With the scenario where all firms within the same field possess identical resources, it entails same employment of strategies among them. This contributes to increased effectiveness and efficiency level among all firms, since they have exactly the same assets, thus there is no space for a sustained competitive advantage. To be able to receive a sustained competitive advantage, a firm within an industry needs to perform a strategy first. The process is named first mover advantages and involves benefits such as positive reputation, well-organized transportation channels, goodwill for clients (Lieberman and Montgomery, 1988). Knowledge concerning opportunities connected to implementation of a strategy that is not yet examined by other firms within an industry pushes a firm to be the first mover. In order to gain sustained competitive advantages in the marketplace the resources that a firm possess need to have four characteristics, which are valuable, rare, imitable and organizational.

2.3.1. The VRIO Framework
The VRIO framework can support firms to examine its competitive potential of their resources against its market competitor’s product or services
(Hollensen, 2017). To be able to obtain competitiveness, resources need to fulfill a number of characteristics. The abbreviation stands for four criteria: V - Value, R - Rarity, I - Imitability and O - Organization (Barney and Hesterly, 2010). Firstly, the question of value examines regarding a firm's specific resource is valuable to its customers, namely if it generates with opportunities simultaneously that it assassinates threats that can undermine a firm's business operations. Secondly, the resources or capabilities need to be unique on the market, in order to compete with its competitors. However, it may occur that a number of enterprises in an industry have the similar valuable resource and still all of the firms produce a competitive advantage. The resource can generate a competitive advantage as long the number of enterprises is fewer than number of firms required (Hirshleifer, 1980). Thirdly, a resource should be challenging and expensive to imitate for other actors. Barney (1986a; 1986b) and Lippman and Rumelt (1982) have established three sources to imperfectly imitable resources, which are (1) unique historical conditions; (2) causal ambiguous; or/and (3) socially complex. The first mention reason points out time and space as a source to inimitable resources and once a particular event has passed, companies do not have opportunity to receive time-reliant resources. Further, causal ambiguity reviews understanding lack between resources and a firm’s sustained competitive advantage of an external individual (Alchian et al, 1950). Due to poorly understanding in the connection between competitive means, success of a firm will be hard to imitate. The last reason for obtaining imitability emerge from complex social phenomena, where firms that possess valuable resources have power to influence, which scares away other firms to imitate. The social complex can be seen in a firm's culture, interpersonal relations, reputation among suppliers and customer with more (Barney, 1991). The fourth question in the VRIO framework is organization that examines a firm's structure, routines and organization that underlying for value through exploitation of opportunities. To receive sustained competitive advantage the answer on above presented means need to be “yes” (Hollensen, 2017). However, in those cases when a resource is not answering the questions at all will results in competitive disadvantage. In case when a resource are both valuable and rare creates competitive parity and ensures it with temporary competitive advantage (Barney et al, 2012). In Appendix C is the VRIO framework summarized and presented in a table.

2.3.2 Organizational Resources
A firm’s resources consist of a range of attributes such as assets, capabilities, processes, information and knowledge (Barney, 1991). Ross et al (1996) and Gruber et al (2010) examines four of the most crucial resources to be utilized
by tech firms in order to obtain the increased competitiveness, which are human, financial, innovation and technology and alliances and relationships-based resources.

**Human capital**

By examining a firm’s internal resources, the human resources (HR) is one of the main intangible components for the creation of gaining competitive advantages (Qehaja and Kutllovci, 2015), due to difficulty in duplication (DeNissi et al, 2003). Further, Qehaja and Kutllovci (2015) stresses that the resource connects to a firm’s knowledge, experience, skill and commitment and works as assets that link to the creation of a sustain internal business environment. In comparison to competitors, the human resources are the component that can differentiate one firm from another. Indeed, Porter (1990) emphasized the importance of obtaining personnel within the organization’s internal environment in order to create sustain competitive advantages. Furthermore, the resource is observed as the primary activity within the firm and embedded it in the part concerning; recruiting, training, developing and rewarding individuals in the organization. In addition, the personnel are referred to incentive schemes and compensations structures (Gruber et al, 2010).

Human capital within the tech sector is associated with constantly business problem solving and discovering new business opportunities based on information technology (Ross et al, 1996). This in turn is accessible by formal training, experience and leadership. To be able to succeed within the tech sector, the human asset is forced to possess technical skills, business understanding and have a problem-solving orientation. It is vital to have employees that are flexible and are open for learning, since there are constantly improvements/change in technologies. Business understanding occurs from an active communication with customers (Qehaja and Kutllovci, 2015).

**Financial capital**

Financial assets are seemed to be the most flexible of all the firms’ resources. Moreover, the resource is a tangible resource (Gruber et al, 2010). Actors can with the support of financial resources obtain other resources (Brincckmann et al, 2017). Traditionally, the financial resources divide into two categories: (1) internal funds, and (2) external funds. The first mention is related to capital which is possessed by a company, in terms of own assets and profits, without being in debt. The external funds, emphasizes the opposite, namely that the
capital is coming from an external actor such as banks, and there is a possibility of high-risk debts (Chatterjee and Wernerfelt, 1991). In addition, organizational financial resources are influenced by the attendance of financial service, i.e. banks, on the markets. For firms, especially regarding SME, the access of financial services implies an extended ability of purchasing power and international operations, and collection of assets (Dercon et al, 2006).

Within the business sector, there are a number of methods in financing and investing, such as in venture capital (VC), Bootstrapping and Business angel (BA). VC implicates to invest capital in a firm in its inception process, startup or expansion phase, where the investor acquired an active possession (Gompers, 1995; Reid and Smith, 2008). Secondly, Bootstrapping occurs when firms discover and find out different creative methods with the aim to obtain capital without being dependent on external investors simultaneously as it is free of charge or at low cost. Bootstrapping can, for instance, be related to a favorable agreements term with suppliers, utilize resources from the owners and find favorable agreement terms with suppliers (Hårmar and Åsheim, 2014). Lastly, BA involves private persons who provide financial support into a startup with the exchange of profits and part of the ownership. In addition, the BA offers extended network and expertise within the field (Poposka et al, 2014). Research of financial resources focus primarily on financing of the new and small enterprises, since firm’s growth to a high degree reliance on external accessed of capital (Brinckmann et al, 2017).

**Innovation and Technology resources**

Ross et al (1996) review the technology resource as a platform of shared tech and databases, where the asset was utilized to be able to integrate systems and make tech implementations more profitable in the context of operation and support. New combinations of possessed internal resources of a firm contribute to innovations (Soh and Roberts, 2005). With the aim to succeed with innovation, firms are forced to apply a set of resource, such as knowledge and capabilities. In detail, creation of knowledge is mainly associated with Research and Development R&D (Adlloost, 2019). Innovation is a key driver for economic growth and supports the competitiveness on several dimensions, such as macro, industry and micro levels (Porter, 1985).

The firms can with the help of innovation receive a higher profitability and business performance, by adapting better quality, extend product or service
assortment and optimize manufacturing process. They can through these means achieve cost reduction, maintain or increase market shares, and improve reputation. It’s crucial to obtain a favorable modification and development in a product type, process or service in comparison with the old version in order to make a new intervention into a successful one (Bos-Brouwers, 2009). Further, innovation has traditionally been divided into five types, which are connected to manufacturing of new products, improving of new procedures for production phase. Additionally, searching for new suppliers, adapting new marketing techniques and seeking after new markets to enter, and finding/adopting improved strategies to run business (Adldoost, 2019). Correspondingly, a common challenge among SMEs is the limitation in accessed resources. The innovation and tech development are therefore reliant on internal knowledge combined with external knowledge received through contacts and firms’ capacity to interconnect those variables (Löfgren, 2014).

**Alliances and Relationships based resource**

Ross et al (1996) view the relationship asset as a platform where actors share risk and responsibility, and where variables such as communication, mutual respect, trust and effective negotiation processes are vital starting points. Actors who are involved in a network tend to run its business more successfully (Cross and Cummings, 2004). The development of networks and alliances, especially within the high-technology industries, seems to be a vital source to a number of benefits and capabilities (Soh and Roberts, 2005). Enterprises can with the help of alliances extend their internal resources and innovation capabilities which facilitates in enlargement of market shares. Acquisition of *external information* is a central strategy within technology alliances to obtain innovation (ibid).

The knowledge-based theory (KBV) stresses knowledge as a vital strategic asset (Curado, 2006). The theory implies intellectual competencies and knowledge hold by staff members, in regard to abilities and learning process that captures the potential of individuals process of new information (DeNisi et al, 2003). The ability of individuals to learn faster in comparison to a firm’s market competitors results in sustained competitive advantage (Geus, 1988). In detail, a firm’s learning process is building upon three subprocesses which are creating, retaining and transferring knowledge (Argote, 2013). With the aim to obtain competitiveness the knowledge needs to be acquired developed and utilized within an organization. The main characteristics of knowledge-based resources is that they are intangible and dynamic, such as reputation.
and leadership (Petrick et al, 1999). In additionally, according to Nonaka (1991) is knowledge the only true lasting competitive advantage.

Moreover, innovation is contributing to market uncertainty, where access to competitive information will minimize the problem and increase a firm's business success. Recently, studies have shown that business relationships have a positive correlation with a firm's capacity to innovate. Hence, should enterprises strive after cultivating and developing such contacts (Gronum et al, 2012). Firms who possess a wide network with for instance customers and suppliers, reduce lack of knowledge and skills (Löfgren, 2014).

Moreover, to construct a successful technological alliance the actors involved are forced to exchange its human resources, present its capabilities and have a well-functional platform for sharing of tech knowledge. The degree of knowledge, in terms of innovation, is reliant on the research capability of an enterprise. In addition, Ross et al (1996) have established three criteria to illustrate strong network bonds, which are business partner possession, keep track on all IT projects and top management control in established tech priorities, which refers to restricted assets that has been invested favorable. Further, it is recommended to spread project risks by multiple collaborations where firms will deal with less risky environment concerning exploration and exploitation of new opportunities connected to several sources of tech progression and knowledge spillovers (Soh et al, 2005).

### 2.3.3 Organizational Capabilities

According to Barney et al (2001), in order to gain sustained competitive advantage for firms, the combinations of organizational resources and capabilities are vital assets to obtain (Grant, 1991). Capabilities may occur from both a single resource or a set of resources and coordination between individuals. However, a capability that has arisen on the basis of integration of people’s functional capabilities, such as product development and market research, seems to be the most important for a firm (Grant, 1991). Organizational routines are a vital part of capability notion since it gives insights into correlations between resources, capabilities and competitive advantage. The connection between resources and capabilities lays in the ability of a firm to bring cooperation and coordination within the teams by motivation and e.g. socialization among members supported by routines. These routines can consist of a firm value, style, leadership and traditions. These organizational assets for a firm can contain of, for intense, organizational skills, core competencies, resource development competence and technological capabilities. This result of the straights organizational
capabilities implies, hence, important elements for firms to process competitive advantage and better performance (Ismail et al, 2012). In accordance with the preparedness for internationalization, a firm is dependent on its organizational capabilities. It could include, for instance, the personals’ characteristics of experience, language and culture (Hollensen, 2017).

2.4 Internationalization

Regarding the highly globalized world, firms do not act in an equal patch as in earlier decades, where the main business operations concerned having a domestic market view (Benito, 2015). Nowadays, it is present as rare that a firm has mainly domestic businesses, as a result of the globalized mindset that has embedded to a wider international view. To act with cross-border activities is the identification of an organization composing operations in foreign countries (Knight and Cavusgil, 2004). The traditional model, the Uppsala model (UI), is a framework used for the process behind the actual expansion abroad. UI has been analyzed as the primary internationalization expansion from previous scholars. It encourages firms to make a gradual expansion, starting with geographical close countries first and market knowledge is an essential method (Johanson and Vahlne, 1977). Another internationalization process is the Network approach, which emphasizes actors involved as the vital mechanism for firm’s expansion abroad (Coviello, 2006). The theory relates to firms internationalizing by network partners which includes the international experience and operations as important assets (Mitgwe, 2006). Another internationalization process is called the Foreign Direct Investment (FDI), which guidelines firms in how to operate a business operation in a foreign country by e.g. utilizing wholly-owned affiliate or having a local organization (Moran, 1998).

The globalization mindset is not the only assumption for how organizations engage in cross-border activities. According to the researcher Benito (2015), there are questions that regards why, where, and how the internationalization has embedded as a part and can be answered differently depending on the individual firm. There are four classical motives for internationalization of firms: 1) the market seeking: the search of new customers; 2) the efficiency seeking: organizations aim to lower costs associated with performance and economic activities; 3) the resource seeking: the search for resources in another market; 4) the strategic asset seeking: the ability to obtain assets that are unavailable on the domestic market that contribute to a long-term strategy (ibid).
2.4.1. International Competitiveness

Within international business (IB), specifically observing the competitiveness, there are numbers of researchers, such as Buckley, Scott, Lodge and Feurer and Chaharbaghi who defines various measures that creates competitive advantages at several dimensions. For instance, the product, the firm, the industry and the country levels. The researchers have developed diverse theories that contribute to the creation of international competitiveness, in conjunction with the support of efficiency and effectiveness. Buckley et al (1988), mentioned that the efficiency observed reaching a firm’s goals for the lowest possible costs and the effectiveness as firms maintaining the right goals. Correspondingly, it is the equilibrium made by them both that contribute to international competitiveness for firms in an economic point of view. In addition, nations’ prosperity and environmental stability provides with opportunity of creation, production and distribution of product versus service, customer value and economic strength with more (Buckley et al, 1988; Feurer and Chaharbaghi, 1994; Scott and Lodge, 1985).

The perception of the concept differs. For some researcher’s competitiveness is about successful economic performance, for other it relates to the ability to maintain its competitive advantages on the marketplace (Buckley et al, 1988).

Buckley et al (1988) have defined three categories of measures, which are competitive performance, competitive potential and management process (3P). By those divisions in the competitive process can firms easier analyze internal processes that contribute to competitive advantages. Further, have Coviello et al (1998) developed the research initiation made by Buckley et al (1998). By an empirical research have researchers established factors contributing to international advantages. Within the software field of international competitiveness that is created by following aspects in the “Competitive Potential” stage: (1) the degree of qualified workforce; (2) established business relationships with sizeable international corporations that have possibility in providing financial support, market contacts and access; (3) sustain product/service quality; (4) possess a wide contact network (including formal and informal contacts) in established and most profitable markets. Further, the scholar has instituted four means of the “Competitive Process” stage. Structures, systems and style of businesses present the first process-related aspect of competitiveness. Secondly, should companies strive to expand international engagement. Thirdly, numbers of top managers over time. The fourth step regards that managers should have an essential role in key relationships. The “Competitive Performance” phase constitutes of optimize sales volume and revenue streams. The prospect of firms can be based on sales growth, gross income and market shares (ibid).
International networks are a source to a successful international expansion and technical and foreign market knowledge (Johanson and Vahlne, 2009; Löfgren, 2014). By possessing those components, a sustain long-term competitiveness can be accomplished. Further, have researchers examined the other side of the coin, namely constraints to achieve international competitiveness among software companies. The most occurring restraint is high dependence of other actors involved in market operations in acquiring access to markets and receiving growth. Thus, inferior businesses undermine its flexibility and control degree on the markets (ibid).

2.5 Conceptual Framework
The conceptual framework summarizes the above presented literature review and aims to capture an inside on the main components in the thesis. The aim is to illustrate the interconnection between different theories. The industrial cluster is referred to the Stockholm cluster, which involves a number of tech startups that confront competition and need a set of resources and capabilities to process competitive power. Further, the RBV and the VRIO framework generate with sustained competitive advantages, which favors tech startups on the market place. Lastly, the firms’ sustained resources and capabilities will turn into international competitiveness by operating on the foreign market.

Figure 2: The Conceptual framework, designed by the researchers, 2019.
3. Methodology

The following chapter presents the selected methodology, videlicet qualitative method with an advanced description of how the authors will acquire and process the data to reach the purpose and answer the research question. Moreover, each sub-chapter emphasize a range of methods and approaches that will be utilized to collect data with the final aim to draw trustworthy generalized conclusions.

3.1 Abductive Research Approach
Traditionally has the research approach involved two types of approaches in order to connect the theoretical part with scientific research, namely induction and deduction (Bryman and Bell, 2011). The inductive approach starts with a number of observations and later strive to find a general truth from those observations. On the other hand, the deductive approach originates in logic, facts and/or assumptions with a general truth as its initial step. This approach exercises single cases where generalization and clear explanations are avoided (Alvesson and Sköldberg, 2009). The deductive approach associates with less risk, rather than inductive, since the theoretical framework guideline researchers in the empirical data collection. However, Alvesson and Sköldberg (2009) emphasize a third approach, called the abductive approach. This sort of research approach refers to a combination of an inductive and deductive approach (Ghauri and Grounhaug, 2010; Alvesson and Sköldeberg, 2009). It stresses a form of logical inference, which initially emphasize an observation or set of observations then seeks to find the simplest and most likely explanation for the observations. The authors have decided upon having the abductive approach. The reason behind the selection was due to the authors’ assumptions of making implications of an outline that could follow the theoretical reasoning leading to a limitation in flexibility for the research. Regarding the aim of making a reliable theory, the seven interviews in the empirical data seemed to narrow and therefore made the authors the conclusion to implement the abductive approach. Correspondingly, the selected research approach links to a continuously developing empirical and theoretical process that strives to make an understanding of accepting both empirical observations and theoretical frameworks which are refined during the research (Alvesson and Sköldberg, 2009).

3.2 Qualitative Research Method
The selected methodology for the research study is a qualitative research to collect data with the aim to answer the selected research question. The authors decided upon selecting the qualitative method, which emphasizes an
interpretative and constructionist perspective of a selected topic (Bryman and Bell, 2011). Further, the qualitative method aims to understand a subject of nature and characteristics (Widerberg, 2002). An alternative methodology is named the *quantitative* perspective, which stresses the aim of testing and constructing through describing, clarifying and predicting a certain topic. It is commonly used to insert survey investigations with the purpose to collect a wide range of quantified data (ibid). However, there could occur disadvantages when conducting a qualitative research method, e.g. the lack of representative data, in comparison to the quantitative research. The fact that the information is collected from a limited numbers of case companies make the generalizability questioned. Consequently, in a qualitative research is an analytical generalization preferred rather than statistical (Yin, 2014).

The authors argumentation of selecting a qualitative study is due to the thesis usage of having a case study where the data is gathered from interviews with seven tech startups. Correspondingly, the aim is to make a study with a deep interpretation of a certain topic, therefore, is the study limited and the qualitative method is agreed as suitable. The research takes part within the context of meanings, concepts of definitions, characteristics and making a description of a subject (Bryman and Bell, 2011). The authors main aim is to emphasize how tech startups main resources and capabilities from the Stockholm cluster contribute them to stay competitive internationally. Therefore, made the authors the decision of having a quantitative research method in the thesis, which stresses different methodological components, e.g. quantified data (ibid).

### 3.3 Case-Study Design
Case studies as an implemented design in a study emphasize the use of applying a case on e.g. an individual or an organization in a specific time and place. Yin (2014) has enacted two types of case studies, which are entitled as *single-case studies* and *multiple-case studies*. As the first mentioned implies, the case is based on one single case in order to build the analysis whereas the multiple-cases can yield data from various cases.

#### 3.3.1 Multi-Case Study Design
A multi-case study design has been applicable on the thesis work since the authors have interviewed diverse case companies. Following thesis have interpreted organizational resources and capabilities obtained through the Stockholm cluster. Therefore, have the authors found the most suitable option to utilize a case study, which involve an analytic approach. In addition, the
researchers argue that the more cases on firms in the study, the more accurate and comprehensive analysis will be achieved.

3.4 Data Collection
An appropriate sampling strategy needs to be adapted to optimize the data collection and minimize any possible problem during the research. During institution of analysis and conclusion regarding collected data on the selected topic, it is up to researchers to assort the findings (Creswell, 2014). The research study should involve relevant and concise information that could contribute to a clear conclusion and therefore can the authors decide to exclude some parts of the collected data (Ghauri and Grønhaug, 2010). The data was collected by phone interviews and videoconferences. Phone interview was adopted in four of the seven were the advantages by using this kind of technique is cost- and time efficient. By using phone interviews, it assumes that the interviewer has less influence on the interviewee since personal characteristics of the respondent cannot be perceived. This kind of data collection lacks body language and different methods such as tables or diagrams cannot have presented and/or utilized in order to bring deeper understanding in the question (Bryman, 2002).

3.4.1 Primary Data
Primary data is collected instantly through a primary source, for instance, with the use of having interviews. There exist a various range of interview formations, such as oral through physical interviews meetings, via phone or by writing emails (Ghauri and Grönhaug, 2010). Merriam and Tisdell (2016) claim that interviews should be executed with skilled people who will transfer a considerable and reliable knowledge to the researchers which the researchers have done. The thesis has seven interviewees and are all engaged in the tech sector within the Stockholm region. The data collection is feasible by implementation of the interviews and documents and are mainly primary sources (Denscombe, 2016). This results in a study made by the authors to involve in a more open mindset of placing individuals as themselves who are creating and constructing knowledge in interaction with the external surroundings.

3.4.2 Secondary Data
It is frequent to include secondary data in a thesis in order to support the research with utile information. The authors have used initially primary data sources while conducting the study, however, the use of having secondary sources into the thesis were indeed acceptable as well, in order to get a better understanding regarding the research question. According to Ghauri and
Grønhaug (2010), the main advantage of using secondary data sources in a study is the enormous savings in time for the researchers. Research papers, academic journal articles, books and online news articles are examples of secondary data sources that have been utilized in the thesis.

3.4.3 Structure of Interview
Traditionally, researchers can choose from three different interview forms, which are structured, unstructured and semi-structured (Merriam, 2009).

Firstly, a structured interview is mostly conducted to a quantitative research methodology and statistical measures. The structured interviews are characterized by standardization that entails organized sampling, fixed response classifications and loading processes (Ghauri and Grönhaug, 2010).

Secondly, unstructured interviews imply less predetermination, scilicet no prepared guideline of questions, but rather a basic perception and knowledge concerning the investigated topic (Denscombe, 2016). The direction of the interview is controlled by the respondent, while the interviewer corresponds with follow-up questions. Thirdly, the semi-structured interviews are a compromise between the above-mentioned structures of interviews. Semi-structured interviews involve partly predetermined questions. However, there is no limitation to follow up with supplementary questions (Ghauri and Grönhaug, 2010). The interviewees had the opportunity to elaborate answers and add comments that could thereby be reached on an advanced level (Denscombe, 2016).

The researchers decided that the semi-structured interviews were the most suitable choice for their study. Indeed, this sort of structure contributes to an advanced understanding of investigating the subject and the firm's behavior on the international arena. With the support of e.g. open-end questions can the responders have the possibility to answer in accordance with their knowledge and experience, without being limited (Ghauri and Grönhaug, 2010). The data that has been collected were from seven interviews in the Swedish language, which later on has been transcribed and finally translated into the English language. Without any exceptions are the interviews transcribed in order to decrease the risk of the interpretation changing in the data (Cohen et al, 2011). The authors made a careful review in order to have the original source obtained. Further, a guideline consisting of 25 numbers of questions has been established by the researchers to ensure valuable data collection during the interviews. The whole interview guide is illustrated in Appendix D. Additionally, in order to make it effortless for the respondents, have the authors initially introduced the investigated subject, namely the Stockholm cluster, firm’s resources and international competitiveness.
3.4.4 Purposive Sampling
To receive a representative data sample for the analysis, an appropriate research area has to be established (Merriam and Tisdell, 2016). According to Saunders et al (2009), there are several different sampling techniques that can be applied, were the two most frequent used are entitled *quota* and *purposive sampling*. The Quota sampling is more usually applied on interview surveys, to cover the aim of having a large-scale size from the population. In contrast, the purposive sampling is more used in the application when the research sample is more petite in size. There are diverse aspects regarding the both options, however, in regard to the thesis study, the purposive sampling method is discussed as the most suitable. The selected method has the arguments for emphasizing the generation of information regarding the research question and objectives (Saunders et al, 2009). Further, it is of high importance to present data in sequence to be able to support and elaborate information. The authors have conducted criteria for the selected interviewees, in order to find the most suitable and reliable participant for the thesis.

*The respondents were required to follow four criteria;*

1. Employed in a tech startup
2. Employed within the Stockholm cluster
3. Employed in a firm that is internationalized
4. Employed with one of the titles of; CEO, founder, growth developer or positioned in the leadership management.

In accordance with the criteria above have the interviewees resulted in having seven tech startups from the Stockholm cluster. The selected participants could answer the questions with an interpretative mind-set, hence, the choice of the titles was definitely trustworthy.

3.4.5 The Cases
In Appendix E, the appointments are summarized with the interviewed firms and information regarding the participant and the interview details.

**Case Company 1: Tink**
The Swedish firm Tink was founded in 2012 by Daniel Kjellén and Fredrik Hedberg. The tech startup offers a digital platform to support customers with banking.
Case Company 3: Northvolt
Northvolt’s inception was in 2016, Stockholm, and the firm offers energy batteries. The founders are Peter Carlsson, Paolo Cerruti, Harald Mix and Carl-Erik Lagercrantz.

Case Company 2: Company X
The anonymous firm X is a Swedish service-oriented enterprise within the computer games industry, established in 2014. The interviewee has made the decision to be anonymous in the thesis by distinct reasons.

Case Company 4: Company Y
The firm works within the tech industry of supporting other organizations with personal information digitally. The firm was founded in 2015. The interviewee has made the decision to be anonymous in the thesis by distinct reasons.

Case Company 5: Storytel
Storytel is a Swedish international listed company and book publisher from the Stockholm cluster hence, offers books and audiobooks. The company was founded in 2005 by Jon Hauksson.

Case Company 6: Appjobs.com
The tech startup, AppJobs.com, aims to support every individual into finding a work. Alok Alström is the CEO and founder of Appjobs.com and the tech startup was established in 2017.

Case Company 7: Artificial Solutions
Artificial Solutions was founded for the global enterprise, with the advanced tools of conversational AI (Artificial Intelligence) platform. The founders were Johan Åhlund, Johan A. Gustavsson and Michael Söderström and the firm was established in 2001.

3.5 Operationalization
In accordance with Saunders et al (2016), operationalization refers to the act of translating concepts into tangible symbols that can be measured. This concludes the configuration of the concepts from the thesis findings of the empirical data. The term operationalization origins from the physics and concerns the approach on how to measure different perceptions (Bryman and Bell, 2011). In Appendix D the entire interview guide is presented. The chart down below presents the thesis operationalization schedule;
### Concepts

<table>
<thead>
<tr>
<th>The connection between the literature review and the interview questions</th>
<th>Interview questions</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background questions</td>
<td>1-6</td>
<td>The questions generate with a brief and fundamental information of the tech startups.</td>
</tr>
<tr>
<td>Organizational resources/capabilities and the Stockholm cluster</td>
<td>7-16</td>
<td>The aim of the questions is to acquire knowledge regarding the firms’ resources that were gained through the Stockholm cluster. In addition, the questions regard the industrial cluster of Stockholm.</td>
</tr>
<tr>
<td>International Competitiveness</td>
<td>17-23</td>
<td>The aim of the third section is to acquire an understanding concerning the cases of international competitiveness.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>24-25</td>
<td>Lastly, the questions ended with open questions were all participants had the chance to ask or add something related to the topic.</td>
</tr>
</tbody>
</table>

**Figure 3: The operationalization, designed by the researchers, 2019.**

3.6 Method Data Analysis

According to Miles and Huberman (1994), the authors highlight three procedures of data analysis in a qualitative research, which are *data reduction, data display* and *conclusion drawing/verification*. The research question was answered with the conceptual framework as a starting point. Further, the collected data were split into two categories in order to investigate the variables in detail and the pattern between them. The analysis was conducted in accordance with Miles and Huberman (1994), namely
starting point in the data reduction with a conclusion in the end of the research. The authors conducted the interview guide, empirical findings and the analysis organized with a clear structure, hence, the equal headings for each category. Regarding the analysis, it was conducted into a comprehensive reading where the literature review and the empirical findings were analyzed, i.e. previous studies combined with tech startups in the Stockholm cluster were discussed. The aim behind this method was to make a clear pattern for the reader.

3.7 Quality of Research Design
Validity and reliability are used in order to measure the quality of the selected instruments in a thesis. The terms are more commonly used in a quantitative research method than in a qualitative study, due to the matching process of analyzing different instruments with a quantified mind-set (Kumar, 2014). However, in a qualitative research method one can apply the methods, i.e. in other titles that can be applied to emphasize the selected research instruments’ quality. In a qualitative research method, validity and reliability are referred to emphasize trustworthiness and authenticity in order to create quality of a research (ibid).

3.7.1 Validity
The reason to use validity is to first of all measure what the instruments are supposed to measure, in order to avoid mistakes (Kumar, 2014). The qualitative method uses validity through the observation of two indicators named credibility and transferability. Credibility is paralleling to internal validity, which means that the result should be believable and credible from the perspective from the research. Further, transferability is paralleling to external validity, which suggests that the result can be generalized or transferred to other contexts (ibid).

The authors have conducted an interview schedule which contains of questions that links to the founded theories in the literature framework, in order to see that the empirical data can answer to the selected research question. It is necessary to keep these questions in mind in order to be sure that the interview schedule follow the connection to measure the right instruments and that it is measuring what it is supposed to measure (Kumar, 2014).

3.7.2 Reliability
The term reliability means to insert the result from the study as accurate, reliable and stable. The perspective is analyzed through credibility and
transferability, such as for validity (Kumar, 2014). However, there occurs to be two other indicators for reliability in a qualitative research, entitled *dependability*, which is connected to a quantitative methods reliability that emphasizes if the result can be replicate again. The other indicator for a qualitative method is named *confirmability*, which refers to objectivity of the instruments in a study. The aim of the indicator is to observe if the degree to which the results could be confirmed or applied by other researches (ibid).

The authors have selected the segment of interviewing namely Swedish tech startups from the Stockholm region. The selected interviewee within the firms are the CEO, founder, growth developer or positioned in the leadership management, as a result of grasping an output from a participant that has reliable and relevant information for the thesis work. The result from the thesis can be replicate again by using a qualitative research method. However, due to the study’s research method that stresses interpretation rather than a quantified study of a large sample makes it more fragile than for a quantitative study. Hence, to create an accurate, precise and replicable study with other participants can give a movable output, nevertheless, the study can definitely be made by other researches, in regard to the objective indicator.

3.8 Method Criticism
The authors have researched together parallel side by side and have discussed the structure and content of the study in detail all through the thesis period. The methodology is according to the authors considered to be the most suitable choice for answering the research question with an interpreting mind. The aim was to create a deeper understanding concerning a firm’s organizational resources and capabilities from the Stockholm cluster by utilizing interviews from tech startups. Therefore, was the selected method indeed favorable for the purpose. In addition, the selection of having all interviews in Swedish was in regard to have a better reliable outcome of the data collection. The participants were all Swedish citizens, including the authors, hence, made it comfortable for every actor involved to have an effortless conversation without any complications.

However, a research study can definitely be improved in different angles by selecting other methods and approaches. The authors could, for instance, have used more case companies for the empirical data and thereby a larger outcome of discussions could be implied in the analysis. Additionally, the authors had difficulties in selecting which research approach that would be the most suitable choice for the thesis. Finally, the selected approach was the abductive perspective, which gave them both didactic and inductive angles. The
researchers could have used namely the inductive approach for the purpose of having a more learning by experience perspective (Bryman and Bell, 2011).

3.9 Ethical Considerations
Regarding ethical considerations, the authors have had moral behavior throughout the whole thesis project. The topic concerns norms or standards which researchers ought to bear in mind while conducting a study (Cooper and Schindler, 2011). These perspectives support the ethical judgement of what's right or wrong in a study, for instance, includes that no one suffers or gets harmed as a consequence of the thesis. Likewise, in regard to a study’s result, all findings were presented, which implicates in a correct ethical consideration (Cassel and Symon, 2005). Further, the participants in the interviews had the option of selecting to be anonymous, which, as a matter of fact, resulted in two cases. By applying the option of being anonymous is the right ethical consideration (Collis and Hussey, 2014). The researchers aimed at making the participants comfortable and listened very accurate on their requests. Indeed, the study concerned making an academically honest thesis work for every part involved, which was the prime focus for the researchers.

In regard to societal considerations, the study contributes to encouraging individuals to increase their interests in the field of international business. Correspondingly, to embracing society’s long-term interest in entrepreneurial activities in starting a company and increase awareness of Stockholm’s organizational resources and capabilities in the context of international competitiveness.

4. Empirical Findings
This chapter presents the empirical findings that the authors have made during the interviews with the tech-startups. The initial part concerns brief information regarding the interviewee, further, concerning the firm’s main resources, capabilities, the Stockholm cluster and international competitiveness.

4.1 Daniel Kjellén at Tink
Kjellén is the CEO and founder of the Swedish tech startup Tink. He has been working at the enterprise since the inception in 2012. The firm is located in the central part of Stockholm and has 150 employees that serve nine European markets.
4.1.1 Organizational Resources/Capabilities within the Stockholm Cluster

To establish the firm in Stockholm was a natural decision for Kjellén since he already lived in the area. However, he assumes that even if he were from another city in Sweden, such as from Malmö or Umeå, would he move to Stockholm to run the business. He mentioned in the interview that Stockholm is a favorable platform that has access to competent human capital, as Swedish citizens as foreigners. Further, the interviewee mentioned that contacts are another beneficial indicator that has been used with the support from the Stockholm cluster. These network channels are favorable in several ways, among all, access to skilled individuals and knowledge based on other entrepreneur’s experience. Throughout contacts with other entrepreneurs in Stockholm, has Tink received information regarding awareness and failures based on other experiences. Additionally, according to him has inspiration from companies such as iZettle, Spotify and Klarna been beneficial as well, due to e.g. the close connection geographically. In regard to networks, Kjellén continuous to argue that it can be divided into several dimensions, among all, the community of investors. Investors seem to be attracted by the Stockholm area, due to the reputation and geographical proximity of a number of tech startups, in comparison to, for instance, with Västervik which is more challenging because it is not as central and the infrastructure is not that developed. Stockholm includes even other supporting activities, both formal and informal aspects such as lawyers, events and newspapers that boost the advantages of entrepreneurial activities. Kjellén explains that the informal events are even more important than the formal, due to access to new people at different levels, such as investors, newspapers and entrepreneurs.

Further, the CEO mentioned that financial resources have been and are still a starting point for developing business activities. Obtaining investors in an early phase is of high importance. During Tink’s inception did the founder invest the start capital based on its own savings. However, the business requires a constantly new deposit. Further, the Stockholm region and Sweden, in general, have managed to construct a competitive technological movement, where the tech development and digitalization are long ahead, for instance, in comparison to other regions such as South-Europe e.g. Kjellén perceives that he lives in another world, since Sweden is felt around ten years beforehand in technology. This can be viewed in the skilled labor, higher education with a technological angle and the usage for instance of the mobile applications of Swish and Bankid in the community. Sweden in the near future will become an even cash free community, based on the assumptions from the CEO.
Consequently, the Swedish tech development plays a favorable advantage, especially for a digitalization-based firm as Tink.

“(…) Sweden is well ahead in comparison to other countries and it gets a great advantage for competition towards others, you are almost in the future and can go to Europe and talk about the future for the people (…)” (Kjellén, 2019).

Kjellén perceives the tech sector as an “international cluster”, without a near geographical area. He explains the sector as homogeneous which entails that it is independent of the location of firms, such as in London, Warszawa, San Francisco or Barcelona, were the tech firms possess common assumptions, competencies and visions. However, Kjellén mentions a few challenges by being a part of the localization, namely high competition on skilled people. Consequently, Tink is in a constant process of reaching talents, through a partnership with universities within the region and visiting events, in order to expand the networks.

4.1.2 International Competitiveness

Tink’s internationalization process was triggered by the limited domestic marketplace and based on the demand abroad already in 2016. Kjellén argues that they possessed a market competitive product, hence, the decision to expand. With support from the networks has the company received a contact in a foreign market, hence, Tink entered the international market. Moreover, by being from the Stockholm cluster contributed to a number of strengths abroad, among all increased positive reputation on the market. The founder argues that Stockholm is a tech hub, which represents Tink as a trademark on the international arena. He mentioned again the comparison to be from Västervik, those kinds of benefits could not be the same generated as for the capital. Additionally, the firm used equal resources abroad as in the national markets. The fact that technological development is favorable in Stockholm, Tink possesses a successful invent with a product based on two components. In comparison to its competitors, where they sell the product separately (namely in two products), hence, contributes to an advantage for Tink. Regarding the cluster and its service-product internationally, Kjellén states:

"(…)Getting from a high-tech cluster creates good skills with talented employees, that's the most important thing (…)” (Kjellén, 2019).

The firm in general possesses a high technological quality on its product, nevertheless, also a strong/ unique knowledge that they share with others as in the cluster as in Europe. When it comes to the assortment of Tink, the firm offers wider services in Sweden than in the rest of the world. Apart from the
service-based product that the firm offers internationally, in Sweden their customers can also take part in a consumer service. However, according to Kjellén, the firm stays successful on the international market due to the demand for their products, which is connected to the innovative personnel and business idea. This has definitely been supportive tools from Sweden in general with the high technological development and thus skilled staff members from great universities, both from the cluster but also from external sources.

4.2 Peter Carlsson at Northvolt
Carlsson is the CEO and one of the founders of Northvolt. The company was founded in 2016, Stockholm, and the office is located in the center of the city. The firm has 300 employees with more than 40 nationalities and offers energy batteries for cars with the aim of decreasing pollution in the world.

4.2.1 Organizational Resources/Capabilities within the Stockholm Cluster
The establishment of Northvolt in Stockholm was a strategic decision with the aim to receive a mix of benefits from the city. Carlsson states that the capital has the capacity to attract entrepreneurs and construct an entrepreneurial cluster, which he claims that he took part of. In accordance with him, the success behind its business operations is mainly based on a strong business concept combined with competent staff members, from both Stockholm and external actors. The firm focused on the psychical product and its production, namely to do it more cost-effective, better and sustainable. The vision of the firm is to build a global company, such as TESLA, that will promote a more sustainable way of living. The diversity of nationalities at the working place is a vital tool to acquire market understanding, receive knowledge and competencies and networks. This was indeed the most vital asset for the firm, to obtain a skilled workforce with diverse nationalities that can together build a wide pattern of different experiences. The firm has over 40 nationalities working with them. In addition, the organizational culture is another source of strength achievement. Carlsson claims that with the support from the capital could the group boost the speed and innovation, where the speed is the key determinant of competitive advantages among its market competitors. With the support of technology can Northvolt manage to construct its batteries which link to innovative solutions. In detail, Northvolt focuses on process innovation to invent a sustained product, a developed R&D section. To be able to construct a competitive product has Northvolt hired designers from different parts of the world, e.g. from Korea and Japan.
Furthermore, the financial assets have been another crucial tool to achieve success and feasibility of the project of Northvolt. The project required enormous initial capital, hence, access to finance and capital markets has been a starting point. Carlsson divides the financial aspect into three phases, where the money was needed to implement a pilot project, which resulted in an invest about 100 million EURO, in the industrial facility in Västerås and the investment of 1.8 billion EURO in a large manufacture facility in Skellefteå. Regarding the firm’s investors, they are both domestic and internationally based. During the initial phase, the national network of investors was enough, however, the foreign investors were acquired in a later phase of the business operation when the need of the financial capital was extremely high. The interviewee claims that the network asset is a vital resource for success on several fronts:

“(…) not least to build a business opportunity and create attractiveness to be able to recruit new employees. So definitely it is a part of Stockholm's recipe of success, for instance, we have software engineers working with us who are developing a completely new industrial data model for production, and they come among all, Spotify and other types of Swedish startups and Stockholm companies that is used to handling large data models, which means that competence is important and an advantage via the cluster from Stockholm. The cluster has helped us to be able to recruit good working skills to our advantage. Further, we can take knowledge from other Stockholm companies, which gives us an advantage(…)” (Carlsson, 2019).

According to Carlsson, within the Stockholm region, there is a high competition of skilled people. Northvolt captures the entire world as a platform for the recruitment of the right individuals. The Swedish human capital is hard to reach due to its limitations and the comfortability caused by the Swedish security system. The founder assumes that it is even easier to attract foreign employees to the Stockholm region, rather than people from close geographical areas such as the Swedish city of Gothenburg.

4.2.2 International Competitiveness
The internationalization of the firm was implemented from inception, in 2016. To expand internationally was a natural decision for Northvolt, due to the small market, opportunities in Sweden, and due to the business idea. The aim of the business idea was to reduce the environmental issues in regard to the oil dependence and carbon dioxide emission, by implementing a sustained alternative which is the firm’s batteries. The firm’s main vision is to contribute to a sustained impact on the world’s environmental pollution and the product is equal on every single market. Correspondingly, Carlsson views themselves as a European project with the foundation based in
Stockholm. This is due to that Sweden is a well-developed nation that works as a base industry, including Vattenfall (an energy company that is wholly owned by the Swedish state), natural resources, energy and ecosystems, which contribute to a set of advantages for Northvolt. All those attributes combined with skilled personnel generates in a large-scale production that has been supported in reaching advantages internationally. In regard to if there occurred differences nationally in comparison to the international use of resources was hard for Carlsson to answer since the interviewee emphasized more national conditions. Regarding the Stockholm cluster in the context of internationalization, Northvolt received support (during the establishment) from organizations, such as Genova.

4.3 Company X
Company X is an SME consisting of 30 employees that was established in Stockholm, in 2014. The interviewee (Anonymous X) is the founder and CEO of the firm. In addition, the organization is established in an equal building as one of Stockholm's famous Unicorns.

4.3.1 Organizational Resources/Capabilities within The Stockholm Cluster
The enterprise was founded at KTH (Kungliga Tekniska Högskolan) in the Swedish capital, and several of the founder’s classmates and friends are working at the firm today. The founder lives in Stockholm and possesses a wide network of contacts, which lead to the decision to insert the firm in the region. In addition, the interviewee perceives Stockholm as having a favorable entrepreneurial and business environment, were the founder mentioned in the interview regarding the famous billion-dollar companies, known as the Unicorns, and claims;

“(...)which of the Swedish Unicorns do not have a headquarter in Stockholm? (...)”
(Anonymous X, 2019).

The networks are perceived as the most vital asset and obtained with the support of previous business operations, were the founder in an earlier phase sold a company to an anonymous. However, after the sale of the other company had the founder-maintained relationships with entrepreneurs and investors. The majority of the contacts had the basis in the Stockholm region. With the support of those contacts had the Company X managed quickly to get started with the business concept, without any difficulties to obtain investments and partnerships. Later on, the networks were extended further with the support of the established relationships. The firm had/has
famous investors, such as Alex Lugiaga, Sergej Gordev and Zlatan Ibrahimovic who managed to support the anonymous Company X to build and attract additionally investors among all the founder of One Music and Avito and the Lundin family. The CEO argues:

"(...)It usually works so that if you meet an investor, it is usually the one who wants to withdraw with their invested in their network and the resources you can get are unbeatable(...)" (Anonymous X, 2019).

Some of the employees that are working at the firm have experience from companies such as Ericsson, Google and Spotify, that have also offices in Stockholm. The support from the contacts in the cluster helped the firm to reach out to find workforce. The networks were further developed by attending various events and interaction with other entrepreneurs in the same area. Further, the network is according to the CEO a vital tool to achieve capital powerful of people that will have a finance power during a long time of period. Company X mentioned that it is impossible to reach investors and thus networks by being exterior the cluster. The CEO assumes that no investors will invest in a company that he/she does not meet personally, face-to-face meetings are very important even today. In the long-perspective, the firm seeks to possess reliable and more investors to be able to grow. Indeed, the e-sport is in the near future a world sport. By observing the high number of gamers played by the computer game League of Legends, in 2015 it exceeded 201 million. This indicates in a high number and, hence, a large customer demand of their service. Nowadays, the firm possesses 2,4 million users that play regularly on their digital platform. Hence, when e-sport will become a world-leading sport it is vital to have investors that can support them behind.

The firm was initially financed through the founder’s savings and later by investors. Money was and is still crucial for the company in order to implement a fast expansion and to achieve new targets, such as to establish an office in the US. Another resource that is vital for the firm's success is the personnel. It is the human capital that impacts and determines the direction and speed of the company’s success. The company utilizes several methods to attract labor, such as high revenue, positive working environments, free after works and trips ones a year. Since the company emphasizes on human resources, it is vital for them to find and recruit the right people. To be able to find those, the firm corporates with universities from the cluster, having interns from KTH and IHM Business School. Further, Stockholm has a favorable reputation worldwide which makes the firm more attractive and
competitive, mainly in the extent of the acquirement of human resources. In accordance with the founder, there is a trend that has been arising concerning that many people are not willing to work in the neighboring city of Uppsala. Instead, individuals strive to work in the capital. Since the firm’s platform aims to become global in E-sports Championships, the foreign workforce is essential. However, the CEO views the lack of accommodation as a barrier to attract people and a vital asset that unfortunately gets abandoned. Another resource that is of high importance, especially for the tech firm, is access to basic resources such as fiber network/internet that are highly developed in Stockholm.

According to Anonymous X, there are various weaknesses of the Stockholm cluster that undermine the advantages for the company. Firstly, as mentioned with the lack of accommodation. Secondly, the high standard that draws up the revenue level, and to be capable to compete with world leading enterprises such as Spotify, Dreamhack and Facebook, the firm needs to offer high-income streams, hence, to lure skilled labor. Thirdly, is a high competition on the market in the context of pursuit people, housing and investors. However, the founder observes this as a “marathon”, that enables to achieve higher targets and to become a global actor.

4.3.2 International Competitiveness
The internationalization of the firm started in 2016, with a gradual expansion to be able to learn by doing. First did the organization enter markets in Scandinavia, later on to the West-Europe and after than to East-Europe. The motives behind the expansion were to increase growth and receive global customers. An important starting point in the firm's internationalization process was the relations abroad. Anonymous X explained in the interview that if the firm did not have a reliable partner in the specific market in beforehand, that possessed with knowledge about market situation/environment, then they would consider it questionable.

"(...) Our philosophy is that we do not go into foreign markets if we do not have a secure partner in that place, who knows the market(...)" (Anonymous X, 2019).

The service, the internet-based platform, needs adaptation to the single foreign markets, in order to fit the specific environmental conditions. According to the founder, there are some supporting activities and functions that were excluded or included from the platform. For instance, in China, Indian and the African markets the focus was aimed more at the mobile-based platform rather than on computers. In regard to resources, the firm did not
observe any big differences with the organizational assets in the national and the international markets. The firm has a unique product that does not a front competition since the firm managed to construct a smooth platform (where they converted its potential competitors to partners, such as Dream hack), has a 100 per cent automatized service and a strong combination of the above-mentioned organizational resources. The founder claims that the main resource they received was knowledge and experience from other entrepreneurs that were crucial to undergo failures and risks by entering and operating abroad and through this, the firm gained advantages internationally.

4.4 Company Y
The Co-founder of the tech startup decided to stay anonymous in the study. Anonymous Y established the company in Stockholm, the year 2015. The interviewee is referred to as Anonymous Y in the thesis. The firm has 25 employees working with them.

4.4.1 Organizational Resources/Capabilities within the Stockholm Cluster
The company has established two headquarters, one in Stockholm and one in London. The staff members have various experience of working with computer engineering, data protection lawyer at Bird & Bird, and data protection officer at iZettle. Regarding, the Stockholm region the interviewee observed as the most favorable environment for run the business. The most crucial and beneficial asset that the firm utilized from the cluster was the membership of the incubator STING. It was achieved six months after the inception. The Co-founder claims the essential support from the incubator and even emphasizes other startups to gain assistance from them in order to develop. According to the interviewee is STING the most favorable incubator and accelerator in Sweden for tech startups and is nominated the leading one that supports and promote startups in their growth. By being involved in STING could the firm accessed a number of important accents, such as financial capital, free office during a five-month period, a networking platform of both investor and potential customers and service-based recruitment that can boost the workforce. By being part of STING has even contributed the firm in order to be situated in Stockholm, the city is categorized as an expensive area. Furthermore, the founder emphasizes that with the help of the membership they had got a stronger market position that made it possible to extend the staff team and invest in full-time employment. Knowledge is another vital variable that is received through the cluster, by learning by doing, could the startup arise from small steps to a rather well-developed firm, mainly after four years. However, in regard to innovation did
Company Y not see the different from Sweden to Stockholm by receiving the assets. The support from the recourse has contributed the firm with realizing the business idea by having innovation as the main foundation. In accordance with the Co-founder, without the essential support from the Stockholm incubator, could the firm perhaps not even be able to grow. However, the only disadvantage is that STING requires some shares of the company.

"(...)the collaboration with STING and with the other STING members was very good and nice, where everyone wanted to help each other all the time(...)"

(Anonymous Y, 2019).

Further, the company views the region as a generator for only advantages for them. The firm possesses a unique product and thereby there is not intense competitiveness on the marketplace. There is no competition between similar companies in Stockholm, for instance, in the Swedish tech startup hub SUP46.

4.4.2 International Competitiveness

The firm expanded in 2016, which is one year after the inception. The motives behind the expansion was limited to mainly having the domestic market. The firm saw a demand on the European markets, hence, the firm saw an opportunity for increasement. Moreover, the product is online based which contribute to an easier establishment abroad, where the business concept supports companies worldwide to grow easily with the personal data handling. Aside from the unique product construction, firm's competitive advantage boosts the fairly new regulation in 2018 that entails digital support to organizations regarding personal information. In addition, the firm's products have value that covers important aspects, if a firm do not follow the regulations of GDPR, a firm have to pay a lot of fines. Today, the firm is operating on 20 markets. The product looks the same on all markets, since it covers all companies in the world who process European personal data.

"(...)We are a Saas supplier and we must have a product that scales, both quickly and efficiently, where it is “a size fits all” that applies regardless of where they are regionally(...)” (Anonymous Y, 2019).

The Stockholm cluster, STING, has facilitated in the expansion process by accessing network contacts and with the recruitment. Through networks, human capital and interaction with other entrepreneurs the firm managed to gather informative knowledge that were utilized in its business activities, that lower uncertainty and risks associated with expansion. The anonymous Y mentioned that the firm was quick on adapting to the law of GDPR in 2018.
The digital platform and the personnel supported them into quick adaption. The interviewee claims that by being from a high advanced sector in technology has definitely supported the firm in standing strong and fast internationally. The Law of GDPR came indeed very well for the firm, since they felt very stable with what the firm already had, which later supported them against their competitors.

4.5 David Wester at Storytel
Wester is working as a growth developer at Storytel. He has been employed for two years ago. Further, he explains that Storytel is a large-scale enterprise, that started in 2005, with around 30 subsidiaries and have an extended partnership with, such as Bonnier, Disney, Pottermore and Telia. Those partners are even placed near Storytel’s office in Stockholm. In the same building as the office, the firm has their own publisher and record companies.

4.5.1 Organizational Resources/Capabilities within the Stockholm Cluster
The motives behind the formation of Storytel in the capital is based on acquisition of the region-specific advantages and that the founders live there. According to Wester, Stockholm region possess a lot of advantages that favors the company, mainly in access to skilled people. The fact that the region has a number of academic institutions, such as KTH, results in acquisition of competent staff, specifically engineers which is very beneficial for the firm. Moreover, the reputation of Stockholm and the positive business environment, in the context of possibilities, attracts even foreign workforce. Secondly, the platform of investors and partnerships is located nearby Storytel which makes the communication and cooperation easier, in comparison if the company were placed, for instance, in Malmö or Växjö. The fact that Storytel is listed on the Stockholm Stock exchange make it possible for external people to buy stocks. In addition, the majority of firm’s investors is based in Stockholm. In addition, STING in the starting phase has boosted the development of the enterprise, by investments and personnel. Wester assumes that the founder at the beginning financed the firm by loan and support from partners. Thirdly, the innovation/technological development is another vital tool that brings advantages on the market, specially within the digital service. With the help of innovation could the firm manage to improve its online services as well as production of its own physical books. Fourth, Stockholm, as Sweden in general, has a trustworthy infrastructure where the corruption level is low, stabile and high revenues favors entrepreneurial environment and conditions where individuals dare to take risks and start a business. The Stockholm region produces enormous
numbers of tech startups, where the reputation and the business environment can be associated with the Silicon Valley. However, by being placed in America as Apple and Microsoft, is much more expansive. Wester argue:

"(...) when companies grow, they are dependent on the influx of staff and then it is important to have a strong network (...)" (Wester, 2019).

Furthermore, geographical localization of Storytel in Stockholm can both generate pros and cons. The environment constantly motivates the firm, due to the high competition level and ambitions of neighboring companies. The firm always strives to acquire new staff members, create new ideas, partnership and licenses that will boost the development and internationalize the firm further to become more sizeable. Likewise, as competition can induce jealousy. Moreover, the capital constraints in accommodation since there is high demand on it, where people have struggle to find some place to live in exchange of reasonable price. In addition, Stockholm offers expensive office places, especially in the heart of the capital.

4.5.2 International Competitiveness
Storytel’s first entered market was Norway, in 2014. Today, the firm is the biggest actor within audiobooks service, in Scandinavia, Netherlands and Poland. The motives behind the internationalization were the limited national market and to receive higher turnover from the invested capital. When Storytel entering new markets, they buy up local audiobook publishers in order to obtain local network in that particular region. The correlation between the organizational resources and market success, as national as international, is clear. The variables are reliant on each other, since with the help of experience, knowledge receive during the operating years, human capital, financial resources, networking, innovation, organizational structure, received licenses and received rights concerning sell of books and audiobooks, Storytel managed to become a successful firm and compete competitors. However, according to Wester, observing the above-mentioned organizational benefits those are not Stockholm based, rather derived with the help of the government and is applied on Sweden in general.

"(...) endless technology resources and knowledgeable staff increase competition for us (...)" (Wester, 2019).

4.6 Tobias Porserud at Appjobs.com
Porserud is responsible for the Thought leadership at Appjobbs.com, and is a recently recruited employee. The office of the firm is located in the central of
Stockholm and the firm has 55 employees. The office is shared with another firm named Tipster.

4.6.1 Organizational Resources/Capabilities within the Stockholm Cluster
Appjobs.com was initiated by three entrepreneurs in 2016. Indeed, the fact that the company is working with software and online-based service contributes to flexibility for the team to locate the office, however, Stockholm generates with many favorable opportunities and possess a friendly business environment. There are a number of reasons behind the initiation of the firm in the Stockholm region. Firstly, two of the founders Thoman Lund and Alok Alström are from the capital. Secondly, the founders had established relationships with other entrepreneurs in the region and investors that informed them regarding different regulations of Stockholm, hence, facilitated in the firm’s establishment process. Thirdly, the capital possesses a lot of competent and driven people due to nearby location of universities and urbanization, that have contributed to easier access to skilled workforce. The staff member constitutes a source to the company's strength, such as nationally as internationally. In detail, nowadays, Appjobs.com possess 17 nationalities, which helps them in better understanding concerning different markets demand, regulations, languages etc. Additionally, the personnel form the firm’s organizational culture with various background as well as educational as experimental. Moreover, the high English knowledge, that are even used in everyday communication, among personnel attracts the foreigners. In addition, the firm has interns from the cluster, which benefits to the contribution of having direct relationship to, for instance, universities. Another attracting benefit by being placed in Stockholm is the urbanization trend, where Porserud argue:

“(…) funny things happen frequently, it is easier to start a business there because there are more people who live there, where there is more expertise and interest and where you can meet people who are driven by several ideas. It is because there are universities, investors, companies and the whole bit, there are several companies that have started small and have become big in just Stockholm and put the guideline for us others which make it a little easier for us others to do the same(…)” (Porserud, 2019).

Porserud possessed its own recruitment company that boosted the acquisition process of skilled labor. The established contacts even benefited in access to financial capital that is vital to be able to run and develop the business. Appjobs.com had previous business operations and connection with a number of investors that desired to invest. Hence, the entrepreneurs could easily attract capital and reduce its own deposit. In addition, Stockholm involves in
a number of helping organizations that support tech-startups in there developing phase, such as STING. The firm for a few years ago were within the incubator that supported with financial and human assets. Further, Porserud states that the cooperation within the cluster is well-functioning and favorable. Stockholm possess a cooperation culture with a platform where actors shares failures and successful experiences. Porserud argues:

"(...)If you want to influence people in a positive way and at a global scale, then the Swedish market is too small - and this is in fact a strength. When you have to look beyond the city or country you live in, it's making more sense to cooperate with each other within the local community, because then it is more likely that everyone will succeed(...)”

(Porserud, 2019).

Further, the Stockholm cluster can be compared with Silicon Valley in the context of reputation and creation of tech startups, but the Swedish capital is much cheaper in operation. However, the only disadvantages with Stockholm is the lack of accommodation, which undermines the attractiveness of foreign work people to the region.

4.6.2 International Competitiveness

Internationalization were implemented simultaneously with national launch of the service platform. The firm was established in several continents at the same time, such as Europe, USA and Latin America. The firm even established two headquarters initially, one in Poland and one in Sweden. The reason behind the two openings were the cost reduction in Poland but most for the earlier contacts in the area, the networks. Nowadays, the service is adapted to 160 cities around the world such as Stockholm, Athens, Bristol, Fresno and Milan. The motives were to rich and help as many humans as possible globally. A vital starting point for internationalization were acquisition of foreign market knowledge. The main source to information were through other markets actors that were also based in Stockholm. By physical appointments could the firm receive supporting and crucial information based on other people's similar experiences regarding the internationalization

“(...)It is easier to take the bike off to one block and tap on the door and say “hi how did you do when you tried to do this” Although everything is digital, the physical meeting is at least as important as it was before(...)” (Porserud, 2019).

Nevertheless, the Swedish national conditions are not specifically adapted to Stockholm. These conditions are reliable on the society where citizens have a lot of possibilities and experiences on a global scale that were received
through, among all, free education and the security system which results in more risk-taking behavior among individuals. Further, the company has a global thinking since they were internationalized from day one. The company’s main drivers are to receive wider audience internationally and thereby secures the market position. Behind the vision, there are people that are working hard, contacts that support the company with advice and information and the financial possibility that enables the development.

4.7 Johan A. Gustavsson at Artificial Solutions
Gustavsson is one of the three founders at Artificial Solutions, the Stockholm based tech startup, located specifically, that is operating with Artificial Intelligence (AI). At the beginning of the interview, he presented briefly concerning the firm and that he and the Co-founders wanted to create a firm with a global mind set initially. Nowadays, since the start of the company in 2001, there are 110 employed staff member at the firm. He is the only founder who is still operating at the firm, as a board member.

4.7.1 Organizational Resources/Capabilities within the Stockholm Cluster
The idea of implementing the organization in Stockholm was a coincidence. They had connections to the city and that was the most reason behind the establishment there. The firm opened two offices, one in Stockholm and one in Barcelona, starting with the Swedish capital. The reasoning behind the two openings of offices was due to the founder’s connections abroad. One of the founders had contacts in Barcelona, and the need for competent staff members and the requirement of seeking highly skilled language staff were the main. According to Gustavsson, the tech startup needed employees who could comprehend the language of a high level, not mainly the external language from based from school. The natural language is indeed better, therefore, saw the founder the opportunity to operate in Barcelona, in addition, it was cheaper in that city and to gain workforce from the Spanish city. This establishment abroad created an almost immediate contact with foreign clients, and the firm has customers in many different countries and still has in many countries in different continents.

By emphasize specific benefits from Stockholm, as a cluster, is difficult for Gustavsson to explain exactly what the firm gained. According to him, he views more benefits for the Swedish national cluster, rather from the precise region of Stockholm. For instance, the use of innovation and technology is considered as a Swedish benefit by being settled in the country. However, he claims that there is a difference with Stockholm if one may only compare the
city with 15 years ago, the city is much more internationalized today with larger contacts abroad. Further, at the start in 2001, he clearly viewed that competent personnel within IT came from Stockholm, than any other part of the country. He emphasized that it could be due to the fact that there are greater location and attraction of other IT-related factors such as telecom and there are several large enterprises established in Stockholm. Another aspect that the firm possesses from the cluster is university interns. Additionally, the founder explained in the interview that the multinational tech company, Ericsson, with its headquarter in Stockholm, is an important actor within the Stockholm region. Ericsson has a lot of technicians and leaders in its field in the world, and according to him, has clearly affected the region’s tech cluster with its telecom and advanced IT level. Further, Kista as a place has definitely succeeded and been successful, as well as with KTH.

“(...)I argue that Ericsson has been a strong contributing factor to other companies, such as Huawei and Nokia, for example, having established important functions in Stockholm. This has clearly had a positive cluster effect (...)” (Gustavsson, 2019).

Initially, the firm didn't take financial support from incubators, however, Gustavsson claims that he is aware of that there are several incubators in Stockholm that startups can apply advice from. He mentioned that this support is very good and specifically when it is a high risk to start a tech companies which contains a lot of risks, especially to make a software ide; there is no revenue at the beginning, mainly large costs. Then a risk capital is required to have. The founder had a company before Artificial Solutions, which gave him saved capital to be able to finance and support the new company. However, the startup took in external risk capital in 2008, from a Swedish investor in Stockholm, entitled SCOPE, and contacts with banks in Stockholm were also important, one of being Handelsbanken. Additionally, the investor of SCOPE is still important and possess a large impact on the invested money in the company of Artificial Solutions.

4.7.2 International Competitiveness
In the interview, Gustavsson claims that the firm is still a small company and it is difficult for the firm with their niche to namely exists on the Swedish market, therefore, the international movement directly. He mentioned that he is familiar with the Unicorns, and argues that he thinks that Stockholm has gained the title of the Unicorn Factory due to the large and well-known tech firms of Spotify and Skype. Correspondingly, he mentioned that it may have to do with the clustering, that by competing and stimulating each other in the same geographical area results in becoming better and faster firms. He
continues in arguing that it could be due to the free education in Sweden and that the country possesses good computer programmers. Additionally, Sweden was quick with the internet and the infrastructure in the households and the quick implementation of a computer at homes. This connects to several political perspectives that he thinks have definitely contributed to the creation of the cluster.

The firm greatest competitiveness was to have a mix of nationalities, liked to the handling of languages. However, he claims again that he finds it difficult to see a direct link to the competitiveness of the cluster. After the establishment internationally in Barcelona, they opened in other countries afterwards. The firm used the resources they had possessed earlier to create competitiveness internationally. The founders had a global mindset and the firm could expand further by having their language-proficient staff-members, which gave them competitive advantages internationally. Concerning competitors internationally, Gustavsson made an illustration with an example. The firm has a competitor in the American market that is larger than the company, however, they cannot offer their customers an equal amount of service in 35 languages as Artificial Solutions. This has the startup benefited from the cluster.

”...in regard to international competitiveness, we can state that Artificial Solutions offers 35 different languages with their competent and skilled staff. We have been able to partially attract and maintain these through the cluster. This gives us strong competitive advantages...” (Gustavsson, 2019).

5. Analysis

The analysis includes empirical findings that are linked to the literature review. The material will discuss, where similarities and differences will be analyzed. The chapter will be divided into several sections, such as organizational resources/capabilities within the Stockholm cluster and international competitiveness.

5.1 Organizational Resources/Capabilities within the Stockholm cluster

The empirical findings have shown that the industrial cluster within the Stockholm area is limited to the central part of Stockholm, primarily Norrmalm, due to the location of the three empirical cases, namely Tink, Northvolt and Artificial Solutions. Lately, remains Storytel, Company X, Company Y and Appjobs.com which are located only a few kilometers from the central part of Stockholm, the both nearby Gamla stan. There is a
geographical map that covers the empirical firms illustrated in Appendix G. In addition, the empirical cases are divided into two categories, SME: s and LME: s. Tink, Company Y, Company X, Appjobs.com and Artificial Solutions are SME: s whereas the remaining two are LME: s.

**Human capital**

In accordance with Qehaja and Kulllovci (2015), human capital is one of the main beneficial intangible resources to gain competitive advantages for firms, due to the difficulty in duplication of them. The majority of the empirical cases stressed that the staff members were a highly important resource in gathering success and entrepreneurial development. This was even a beneficial resource for them obtained from the Stockholm cluster with access to competent personnel. Through networks, from both formal and informal events, with other individuals, investors, newspapers and lawyers in the area, could they then capture vital personnel and the proximity to universities. Morosini (2004) stated that to be a part of a cluster contributes to the advantages of having a skilled workforce. The companies such as Company X, Company Y, Northvolt and Storytel have recruited people within the cluster, from great tech companies such as Ericsson, Google, iZettle and Spotify, which they are proud of since it benefits the tech startups in reputation and knowledge.

Further, the cluster’s geographical proximity to e.g. universities, such as KTH and IHM Business School, has benefited for Company X, Appjobs.com and Artificial Solutions in their competitive advantages with receiving human capital, and by even recruit some students as interns. Porter (1990), stated that it is important to obtain personnel within the organization’s internal area to create even sustained competitive advantages. The selection of recruiting interns from the cluster would then be a clever method, in conjunction with Artificial Solutions and Appjobs.com indicated as good strategies as well. In regard to the tech startups field, they are required to have personnel that can handle technical skills, possess the business understanding and have a problem-solving mindset, such as the implication made by Qehaja and Kulllovci (2015). Artificial Solutions, Northvolt and Storytel stated that the firms are required to maintain a workforce with advanced experiences in the field, however, these companies did also stress the equal importance obtaining internal and external staff members outside of the cluster. This in order to obtain benefits in the shape of diversity, different knowledge, language, education and experience where people will exchange those to be able to learn and complete each other, hence will boost the firm’s
development process. This in accordance with Argote (2013) is a part of a firm’s learning process that involves creating, retaining and transferring knowledge among employees.

However, there were challenges with gaining the workforce in the cluster, which Northvolt, Tink, Company X and Storytel mentioned in the interviews. The firms claimed that there is a high competitiveness of skilled people, therefore, do the firm recruit more with a global mindset and attracts foreigners to the region, similarly to Storytel and Artificial Solutions. Morosini (2004) claimed that in a cluster it is a common issue regarding obtaining specialized labor. Another indicator that has been affecting on human resources in the area was mentioned by Company X, Storytel and Appjobs.com, namely to find accommodation is difficult for staff members, which has consequently contributed to decreased labor force coming from other regions of Sweden and the world. The trend of urbanization complicates, even more, the situation of receiving housing within the capital.

In regard to the VRIO framework, the human resource is observed as giving a sustained competitive advantage for the empirical firms. In accordance with being a resource-based framework on value, rarity, imitate and organizational structure and culture. This especially was mentioned by Artificial Solutions and Northvolt, where the firms possessed a wide range of nationalities of 35 languages and 40 nationalities. Further, Appjobs.com, Storytel and Company Y mentioned STING as a promoting incubator of the human workforce from the Stockholm cluster. In detail, STING has delivered the most essential resources and capabilities for the tech startups, especially when they are in the initial stage of growth and lack vital organizational resources and capabilities. Grant (1991) also emphasized the importance of having a resource combination based on staff members’ skills that are supported by the organization which results in capabilities.

**Financial capital**
Throughout the seven interviews was it analyzed that the cluster possesses many investors, hence, has an investor community. The interviews have shown that potential investors are clearly located in the region since they were attracted by the favorable business environment and proximity to thousands of high potential firms that they can finance. This situation of geographical proximity can be correlated to Morosini (2004) localization advantages, which in this context is referred to financial benefits. Moreover, Company X states that it is vital for startups to be located nearby investors to be able to
meet them personally since investors will only invest when they have interacted and meet companies personally. All case firms were and still are highly dependent on obtaining finance by external actors, to be able to realize the business idea and expand the firm even further internationally. This was particularly applied on Northvolt that was required to have hundreds of millions of euro to be able to finance the business idea, without the international investors could it not be feasible. The companies of Tink, Company X, Storytel, Artificial Solutions and Appjobs.com managed to finance the firm by personal savings during the establishment phase, which is in accordance with internal funds (Chatterjee and Wernerfelt, 1991). However, all case companies understood that external financial sources were needed, hence, the search after individuals that were willing to invest. In the majority of the cases, the firms desired to seek for external investors. This financial process is referred to, among others, the Venture Capital (VC) as stated in the studies made by Gompers (1995) and Reid and Smith (2008). Moreover, the firms that possessed their own savings at the initial state were Tink, Artificial Solutions, Company X and Appjobs.com. This corresponds to the Bootstrapping theory regarding finance with the individual own savings, as mentioned by Hårsmar and Åsheim (2014).

In addition, as mentioned, Company Y, Storytel and Appjobs.com took part of STING, which promoted the tech startups development during the initial years after the inception in regards to the financial resources. This kind of investment in accordance with the theory also interlinks with VC, since STING required ownership in the exchange for the support. In regard to Chatterjee and Wernerfelt (1991), the researchers see financial resources as external funds, this correlates to capital coming from external factors, such as STING. As mentioned, the incubator supports important assets, such as free office, capital, network platform and workforce. The fact that all the empirical cases emphasized the important of having competent workforce, independent if they are originally from Stockholm or from other cities, make the resource to a clear capability.

Applying the financial resource at the VRIO framework can it be found that the financial resource alone does contribute to sustained competitiveness since the resource partly answers the four questions. The resource fulfils only the value and organization question, which results in competitive parity in academic language. At the other hand, the financial resource is not rare and costly to imitate, since the resource is available to nearest market competitors. Brinckmann et al (2017) claim that with the support of finance actors can acquisition other resources. Indeed, for instance, Northvolt by accessed
financial capital managed to implement a pilot project and construct manufacture facilities in Västerås and Skellefteå. This, in turn, helped to realize the business idea and offer a psychical product as well as nationally as internationally. By the empirical evidence can it be stated that only strong/unique business concepts that have a large potential attract investor since no one are willing to invest and then lose capital in the business. Likewise, for Storytel that aims to expand its resources in order to cost reduce the operational cost by owning new production facilities, copyright, subsidiaries abroad, label and publishing companies.

**Innovation and Technology**

The majority of the cases mentioned that their digital platform is dependent on technological and innovative staff members and basic resources such as the internet to construct the business idea. In accordance with Adldoost (2019), organizations ought to apply to a set of resources to receive innovation, such as knowledge and capabilities. According to Porter (1985), innovation is seen as the key driver in a firm’s economic growth, thus supports the competitive advantages for firm’s both nationally and internationally. It is assumed that in high technological clusters, as in the Swedish capital, organizations tend to stimulate innovation substantially (Keeble and Wilkinson, 2017). This was observed throughout all cases, that the high innovation infrastructure was stimulated by the startups within the geographical area, thus standing strong and fast internationally. This also correlates to the studies made by Morosini (2004) and Ketels et al (2008), by being a part of an industrial cluster that can even affect the competition by, in conjunction with, drive the access of innovation, which connects to the generation of sustained competitive advantages. In addition, with innovative measurements, firms can receive higher profitability, thus higher business performance (Bos-Brouwers, 2009).

Based on the empirical cases can it be stated that Sweden possesses a high technological development were the internet, gadgets and digitalization with more is a part of everyday life among the population, which can be taken for granted, since all have access to it. Company X pointed out the basic resources such as the internet, needs to be available in order to run the business without taking into consideration the competitiveness. This fact has not been mentioned by the remain respondents even if they utilize those daily. However, the majority of the cases implied that the innovation/technology resources and capabilities from the cluster were originated on the basis of the national conditions, rather than from the Stockholm cluster only. Tink and
Northvolt mentioned that Sweden as a country has high technological skills and infrastructure compared to other countries.

By adopting the VRIO framework on the innovation and technology resources for the empirical cases, it definitely occurs to deliver the value to its customers since the business idea is quite unique. However, the resources do not create a sustained competitive advantage within the Stockholm cluster, instead of temporary competitive advantage. This can be explained in the nature of the cluster. In regard to the literature review, knowledge spillovers are something positive and negative at the same time (Grindly and Teece, 1997). In this case, the knowledge spillovers undermine the firms intangible and intellectual assets, hence, competitive advantage (ibid), due to the exchange of knowledge by networking where actors can imitate each other inventions.

**Alliances and Relationships**

The support of alliances and relationships increase enterprises internal organizational resources and capabilities that favor and support them at the marketplace (Soh and Robert, 2005). Based on the seven empirical cases have the networks contributed to a set of assets, such as knowledge and information, higher innovation performance, human capital and financial prospect caused by investors deposits. Knowledge constitutes of a foundation for all the mentioned resources since knowledge is a base for innovation performance (Soh and Robert, 2005) and seems to be the only true lasting competitive advantage (Nonaka, 1991). Knowledge is even illustrated in different human skills such as language, experiences and education that can be brought to a firm through new employment (Campion et al, 1993).

To be able to build a successful cluster a mutual exchange of knowledge, information and experience are needed in order to balance and bring fairness in acquisition of resources (Soh et al, 2005; Ross et al, 1996), which the empirical cases considered, since they all are open to receive and share the knowledge and experiences. The knowledge and the internal networks support especially during the internationalization process to avoid failures and reduce risks, which were seen in the cases of Company X and Y, Appjobs.com, Tink and Artificial Solutions. The firms of Northvolt and Storytel are categorized as LME: s enterprises. This implies that they possess higher financial capacity and involvement of a number of resources and capabilities, which result in that those are more likely to act more independent from the cluster. This can be view in its action of acquiring and developing the organizational resources and capabilities, for instance, by R&D,
employing people around the world, such as designers from Korea and Japan, and entering new markets. The both utilized external local networks to enter and understand the foreign market environment. Hence, can it been established that the LME: s act more independently from cluster where they seek and obtain resources and capabilities around the world, with the aim to favored and optimize the business operations as much as possible. This differs from being an SME: s as the remaining empirical cases, that have less invested and operating resources and capabilities in the shape of physical facilities, subsidiaries, finance, human capital and networks, etc.

Further, has the empirical findings shown that competition among actors within the cluster occurs, however, cooperation between actor promotes more intense, which were mentioned by Company X, Company Y, Appjobs.com, Storytel and Artificial Solutions. Due to the small Swedish market, the advantages of collaboration outweigh competition outcomes. This especially applies on Appjobs.com, Company X and Company Y, since those are SME: s. As Morosini (2004) stated, the industrial clusters help SME: s to survive on the market by collaboration and in generating in a number of advantages. Additionally, in accordance with the literature review, firms seldom manage to develop resources at its own (Fjellström and Osarenkho, 2017), which force them to build alliances. This implies to all empirical findings. However, in the case concerning the SME: s, the authors can see that its financial capacity is more limited in comparison to the LME: s (Storytel and Northvolt). This undermine the SME: s flexibility and make them more dependent on the cluster. Correspondingly, the human resource is vital for all types of companies independent of size and in regard to other resources and capabilities possessed.

In all the seven cases the investor community in Stockholm was encountered, and by networks channels are those known and achievable. Further, another crucial pattern that was found through the cases of Tink, Artificial Solutions, Company X, Storytel and Appjobb.com was the partnership with academic institutions in the Stockholm region, which are KTH and IHM Business School. As was presented earlier the lack of skilled labor in the region is one of the primary challenges, however the collaboration with universities facilities in access of driven and competent workforce.

Another point of view that has not been discussed is the origin of networks. In accordance with the theory, there are different types of networks that can be achieved differently. The network can be divided into organizational or individual networks (Albrektson et al, 2010). The empirical findings have
presented that the most encountered networks are organizational and social. In case of Appjobs.com, Artificial Solutions and Company X the social contacts have been a driving force during the inception phase. In detail, Tobias at Appjobb.com possesses its own recruitment firm that supports Appjobs.com to find the right people. During the establishment, the above mention enterprises utilized its established contact network that helped them primarily in the utilization of knowledge and finding investors and staff members.

The resource based on the VRIO framework seems to deliver sustainable competitive advantage since it answers yes on the four questions. The fact that alliance and relationships between actors are within the Stockholm cluster make those even stronger. Since in accordance with Fjellström and Osarenkhoe (2017) the networking is a crucial process within the cluster in order to obtain long-term value creation, force actors involved in the corporation. This pattern is, for instance, illustrated in Appjobs.com’s quote that concerning partners geographical proximity where they could easier communication with each other.

**Additional resources and capabilities**

The empirical data has shown that reputation have an impact on the tech startups as well as nationally as internationally. The fact that Stockholm possess a positive entrepreneurial environment provides with an international reputation connected to the Stockholm cluster, also known as the Unicorn factory. Tink pointed out the positive reputation automatically supports firms originated from the region with promotion, where reputation seems as a trademark for Stockholm companies that implies high quality on product versus services, high technology and acceptance/support for entrepreneurial ideas. The second perspective on reputation of the Stockholm cluster is connected to attractiveness that helps enterprises to enlarge its work team. The fact that all the empirical cases are internationalized and possess foreign workforce, is it easier for the them to attract external employees (beside the cluster). Especially in the case of Company X, Tink and Northvolt the reputation plays a positive and helpful role to attract foreign people, since they do not possess another headquarters. With the support of reputation of Stockholm among many individuals associates with big opportunities, high wages, favorable working conditions and other working favors such as after works (AW) and business trips.

Another resource that had a vital impact on the firm’s performance obtained through the Stockholm cluster is knowledge. All the empirical cases more or
less utilized the resource to succeed more efficient at the market as nationally as internationally. The knowledge is crucial for all firm to be able to do improvements, for instance of innovation (Soh and Roberts, 2005), and avoid failures. However, some of the firms are more dependent on networking due to lack of skills, experience, independence and may financial capital. Such as Company X and Y that stated they would not implement internationalization without having a reliable partner in the foreign market, and without STINGs support. This is the most common constraint mentioned by Löfgren (2014) of being highly dependent on other market actors in access to market and receiving growth.

By putting the reputation resource into the VRIO framework can it be analyzed that it contributes to sustained competitive advantage, since reputation is something unique, rare, hard to duplicate and supported by the firms, since it brings additionally advantage on the markets without putting much efforts and finance in it. Reputation is something all companies involved within the cluster can take part of. Moreover, the authors argue that reputation is a capability, rather than a resource for the startups. Since if the all startups were located outside the cluster and even possessed the same business idea and offered the same conditions for potential staff members, the employment of foreign/external people would be less. Further, the fact that the knowledge resource is a part of the human capital, that is connected to e.g. to trains and education, the resources will not be applied separately into the VRIO framework. In Appendix F, there is a figure concerning a summary based on the VRIO framework of the above mentioned of resources and capabilities.

5.2 International Competitiveness
In accordance with internationalization, the majority of the firms argued that Sweden was too limited for their business operations, hence, the vision of an immediate internationalization expansion. In addition, Northvolt even mentioned that there were to small opportunities on the domestic market and that it was a natural decision to expand internationally, in regard to their business idea. There were six tech firms within the Born Global phenomenon, which Halldin (2012) mentioned with firms making an internationalization expansion early after the inception. However, the all firms had the common variable of having a global-mindset and observed Sweden as to small, which correlates to Knight and Cavusgil (2004) and Benito (2015), that argue the importance for firms acting today tend to internationalize earlier than historically. The market seeking of new potential customers internationally
was mentioned all through the interviews, which refers to Benito (2015) research concerning how the view firms possess in internationalizing.

Further, in regard to Benito (2015), there are various reasons behind a firm’s expansion, which further is explained as variables as efficiency seeking, resource seeking and strategic asset seeking. In order to gain competitive advantages internationally for Artificial Solutions and Appjobs.com, these startups decided to open two head offices immediately, one in the Stockholm cluster and one in a foreign market. The reason behind this was due to previous relationships and networks within the Stockholm cluster and internationally, which facilitated the establishment. It was then a smooth network approach with having contacts with an external actor in a foreign market as stated by Mitgwe (2006). Therefore, were these two firms initially searching for resource seeking in foreign markets, specifically in the case of a great workforce. In addition, Artificial Solutions mentioned that the other office, in Barcelona, was comprehended as cheap to operate their business operations from, likely to Appjobs.com having one in Poland. Therefore, can even the efficiency seeking be applied in these cases. In detail, Buckley et al (1988), mentioned the measures of efficiency and effectiveness in relation to international competitiveness, and the importance to have a balance of them both. However, the double headquarter location, the organizational resources of the firms became harder to analyze, since more and more resources were included within the process, and obtained through different channels, time points, situations and places.

Based on all the cases from the empirical findings, an essential role in archiving market success in a foreign country was to offer their customers a unique product. However, the authors found a difference between the cases in regard to the dependency of the Stockholm cluster in achieving international competitiveness. According to Northvolt and Storytel, the firms’ observed more the national cluster of getting advantages from Sweden rather directly from the cluster. By being an LME could be an impact on the outcome, due to higher financial capacity to operate independently from other market actors. As pointed by Burgatti and Halgin (2011), networks can be of different types where ties can be directly and indirectly. This issue has hampered the investigation of resources and capabilities adapted to the Stockholm cluster. The majority of the cases stated that by being able to reach other firms within the cluster could they exchange experiences and get inputs of the international markets. Three of the cases mentioned that the physical appointments were vital to gain information, by that could the firms receive supporting and crucial information based on other people’s similar
experiences regarding the internationalization. Artificial Solutions argued that the clustering, by competing and stimulating each other in the same geographical area results in better and faster firms’ internationalization. In addition, Northvolt and Artificial Solutions stressed the importance of the firms to obtain skilled human resources in language skills. This was a strategic decision seen as patterns with their competitors internationally, where the firm gained advantages by possessing the competence. The network notion is wide which brought complexity during the processing of the collected data. The respondents observed the Stockholm cluster as a network platform, but also networking was used during the expansion. However, for instance, Storytel utilized local actors in the foreign market in order to internationalize, which is not a part of the thesis, nevertheless, is a crucial starting point for the firm in gathering competitiveness. According to Johanson and Vahlne (2009), by having international networks can benefit organizations to increase competitive advantages abroad. This was mentioned by Appjobs.com, Artificial Solutions and Tink. Tink mentioned that the internationalization of the service-based product has been triggered by a foreign order, however, it was unclear if the process was influenced by the cluster’s network. The support came from diverse sources, for instance, by formal and informal events in the cluster. This connects to the research made by Coviello et al (1998), to gain competitive advantages internationally organizations can utilize diverse sources, including the possession of a wide contact network which emphasizes formal and informal contacts in established and most profitable markets.

The benefits mentioned in the interviews connected to the theory were referred to as sustained competitive advantage. It can be analyzed that the market success of all cases is based on a combination of resources that support and improve the product/service they offer on the market. The importance of combination within the RBV has even been pointed out by Pesic et al (2013). In addition, Buckley et al (1988) have defined three processes to measure competitiveness with are the performance, potential and process. By applying the theory on the empirical findings can it be founded that competitiveness is built upon the degree of qualified workforce, established relationships with powerful enterprises, possess a sustain product or service, a structured system of business, international commitment and cost reduction. All those attributes together, contribute to optimizing and unique structure in their business towards international market advantages. The firms do not separate the resources when acting nationally and abroad. However, as in the case of Company X, they did some market adaptations in order to fit better into the environment, but still used the same resources and capabilities, namely
innovation, human, financial, networks and reputation. In addition, observing the cluster’s resources and capabilities in an international context can it be found that those are perceived and outcomes differently. For instance, the innovation resources on the international arena generate higher advantages since it is harder to imitate and are not clearly found among international competitors. In comparison to the national market where actors have access to the same conditions and knowledge where the cluster, even more, promote it.

6. Conclusion

Following chapter presents conclusions based on the previous chapter (analysis). The chapter starts with answering the research question, followed by theoretical and practical implications of the thesis. The chapter ends with recommendations for future research.

6.1 Answering the research question

The thesis aimed to identify the main organizational resources and capabilities obtained from the Stockholm cluster made by tech startups. The study strived to contribute to an understanding of how those assets have encouraged to sustained competitive advantage internationally. The empirical findings based on the seven interviews have shown that resources and capabilities, such as human, knowledge, financial capital, innovation/technology, alliances and relationships, and reputation are absolute the main variables that were utilized with the support from the geographical proximity. Concerning the main resources and capabilities, those contribute with similar values and are utilized as well as nationally and internationally, due to the firm’s global mindset. Based on the empirical findings, Stockholm is categorized by having a wide investor community where entrepreneurs are highly dependent on them, and that is not clearly found in other Swedish regions. However, the financial resource does not encourage sustained competitiveness in the international arena, since it does not fulfill the criteria of the VRIO framework. The second main resource and capability that were found, and are especially favorable for tech startups, is innovation and technology. Innovation for tech startups implies a foundation for the business concepts’ feasibility and constitutes on a daily basis for the cases. However, the resource is not unique for the cluster, instead, the respondents applied it on Sweden in general, caused by the national conditions.

According to the VRIO framework, it can be concluded that the human capital, alliances and relationships and reputation of the Stockholm cluster
are the resources and capabilities from Stockholm that have brought sustained competitive advantage abroad. The fact that the localization stimulates the access and utilization of the benefits, contributes to the result of where the three resources convert to firms’ capabilities. Correspondingly, based on the seven empirical data have the authors conclude that of all the presented organizational resources and capabilities, the most contributing capability to sustained competitive advantage internationally was the human capital. Since the combination of staff members skills, knowledge, experience, education, language, etc. results in a unique combination and it is the individuals who determine the direction and speed of the firms. In addition, the diversity within organizations contributes to an even stronger competitive pattern that especially benefits abroad, by advanced market understanding, languages, information and networks. Further, the Stockholm cluster possesses a well-functioning collaboration and exchange environment that stimulates in obtaining knowledge, innovation, staff members and extended networks, hence, encourage competitiveness even on the international arena. Lastly, the reputation capability boosts the attractiveness of the firms among the potential workforce, thus supports in extending the team, which, as presented above, is the most influencing factor to achieve sustained competitiveness. In addition, the reputation of Stockholm as a tech hub in the context of the foreign market supports the firms by being a trademark, that stands for good quality on products/services and high technology.

6.2 Theoretical Implications
The Stockholm cluster, or The Unicorn Factory, is a new phenomenon on the global arena, hence, there is a limitation in the assessed amount of previous scientific research on the subject. This was mentioned in the introduction and identified as a research gap. Through the thesis, the characteristics of the Stockholm cluster were identified, in terms of the precise location, environment and available resources and capabilities. The study was supported by the general assumption of an industrial cluster. In detail, the study has shown that the geographical proximity is centralized in the central part of Stockholm, mainly Norrmalm, where collaboration and access to resources are favorable.

Further, the main theoretical framework for the study was the Resource-based View and the VRIO framework. The RBV is known and is used in enormous resources, however, it has not been applied to the Stockholm cluster in the context of organizational resources and capabilities. Hence, the lack of information regarding the specific resource combinations applied to tech firms with the aim to obtain international competitiveness. Those findings
predominantly correlate to previous studies in terms of the main resources utilized by tech firms that were presented in the literature review on the basis of Ross et al (1996) and Gruber et al (2010). The literature reviews presented the four most vital assets to possess, which are human and financial capital, innovation/technology and alliances and relationships. However, the empirical study has shown that in addition to the above-mentioned resources the reputation of Stockholm encourages to sustained competitive advantage internationally. The study contributes to a deeper understanding of the cluster and its resources and capabilities.

6.3 Practical Implications
After conducting the analysis, it is presented that there are organizational resources and capabilities that can generate Swedish tech startups in gaining more sustained competitive advantages internationally. The conducted research concluded that the human capital, alliances and relationships and reputation of the Stockholm cluster are the capabilities that have brought sustained competitive advantage into the international environment. This indicated that firms have the opportunity of controlling the power of their competitive advantages in relation to capabilities. Therefore, highlights the researchers the importance of advising firms, specifically tech startups from the Stockholm region to achieve knowledge and feasibility regarding competitive advantages. The study reveals key assets to obtained sustained competitive advantages for tech firms in Stockholm, that will ensure long-term market success and attractiveness. The majority of Swedish startups tend to internationalize fast after inception similarly when they have limited resources and experiences. This thesis can assist startups with optimizing their own resources and capabilities into gaining sustained competitive advantages and thereby minimize uncertainties and risks.

6.4 Policy Implications
The result from the thesis contributes to a developed awareness of organizational resources and capabilities’ straights and the impact on supporting firms in society. In detail, when firms are awarded on how to optimize their business activities with the support from the sustained competitive advantages will it benefit the whole Stockholm community. Among all, by increasing the sales numbers will it stimulate firms’ turnovers, employment, taxes and the encouragement of entrepreneurial contribution to the community. In addition, the knowledge regarding the industrial cluster of Stockholm has contributed to Swedish institutions by comprehending the rather new unexplored subject, the Unicorn Factory. In Sweden, institutions play an important role in the development of business activities and,
substantially for startups. For instance, the support entrepreneurs can obtain from state-owned incubators can be seen as a crucial method for the startup’s establishment and growth. This, in turn, supports the Swedish national economy by increasing business activities in the country.

6.4 Limitations
Throughout the thesis work, the authors identified certain limitations that affected the quality of the research findings, including the ability to answer the research question. One of the major limitations was the fact that the case companies had difficulties in understanding that Stockholm was an industrial cluster, the majority of the respondents were unfamiliar with the phenomenon. The authors prepared a brief introduction before entering the actual interview questions, which supported them while conducting the empirical data. Another limitation was that the seven case companies did not operate in the same products sector, e.g. manufacturing or service-based product. By having firms within the same sector of their product or service would potentially result in an outcome with a more generalized and precise perspective. The last observed limitation was that there were other variables and processes that influence firms’ competitive advantages, however, that could not be investigated due to lack of time for the authors.

6.5 Recommendations for Future Research
The research conducted has closed the research gap regarding what are the main organizational resources and capabilities Swedish tech startups obtain from the Stockholm cluster, correspondingly, how these encourage to sustained competitive advantages internationally. In addition to the contribution to the thesis, further research can involve the following areas:

1). *The investigation of the Stockholm cluster as an industrial cluster and its impact on the international competitiveness for firms acting in another filed than the tech sector or firm characteristics.* By applying equal methods as in the conducted thesis, however, changing the segmentation of Swedish tech startups to another field and emphasize the investigation of Stockholm as an industrial cluster.

2). *The investigation of organizational resources and capabilities’ impact on firms in the international market.* Could it be so that these assets are changing due to their foreign market entry?

3). *The investigation of a single case with the aim to profoundly investigate sustain competitive advantages based on competitive strategies.* There are
different tools for gaining competitive advantages, strategies are another method to imply.
7. References

Interview Participants


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**Electronic Sources**


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8. Appendices

Appendix A: Density of startups within the Stockholm region (Skog A etc., 2016).
Appendix B: Common indicators among actors within geographical proximities (Morosini, 2004).

<table>
<thead>
<tr>
<th>Key constructs</th>
<th>Main references</th>
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<tbody>
<tr>
<td><strong>I.—Institutional fabric</strong></td>
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<tr>
<td>Social community</td>
<td></td>
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<tr>
<td>—Relatively homogeneous system of values and views</td>
<td>Amin and Thrift (1992), Becattini (1990), Gordon and McCann (2000),</td>
</tr>
<tr>
<td>—System of values and view encourages initiative and technical change</td>
<td>Ingle (1999), Porter (1998), Pyke et al. (1990), Rabellotti (1995), Sexenius</td>
</tr>
<tr>
<td>—System of institutions that spread system of values within the cluster</td>
<td>(1994)</td>
</tr>
<tr>
<td><strong>Economic agents</strong></td>
<td></td>
</tr>
<tr>
<td>—Relative number of individuals with specialized skills and knowledge</td>
<td>Arni (1999), Brusco (1999), Czarneski and Ablas (1979), Feser and Bergman</td>
</tr>
<tr>
<td>—Relative number of economically linked firms</td>
<td>Muller-Gloede (1991), Piore and Sabel (1984), Rames Campos, Nicholaus, and</td>
</tr>
<tr>
<td>—Relative number of international and multinational firms</td>
<td>Ferraz Cario (1999)</td>
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<tr>
<td>—Relative number of “meso-level” institutions</td>
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<tr>
<td>—Diversity of “meso-level” institutions</td>
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<tr>
<td>—Quality of “meso-level” institutions</td>
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<tr>
<td><strong>II.—Geographic closeness</strong></td>
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<tr>
<td>—Net specialized labor advantages</td>
<td>European Commission (1999), Keeble and Wilkinson (1999), Lazerson (1990),</td>
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<tr>
<td>—Net interfirm knowledge sharing and networking advantages</td>
<td>Marshall (1925), Piore and Sabel (1984), Porter (1998), Sabel (1982), Simmie</td>
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<tr>
<td>—Net interfirm technology transfer advantages</td>
<td>and Sennett (1999), Swann and Preezer (1996)</td>
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<td>—Net shared market intelligence advantages</td>
<td></td>
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<tr>
<td>—Net product-, technology- and managerial-innovations advantages</td>
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<tr>
<td><strong>III.—Economic linkages</strong></td>
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<tr>
<td>—Common customers (both firms and individuals)</td>
<td>Amin and Thrift (1992), Attthur (1994), Becattini (1990), Becker (2000),</td>
</tr>
<tr>
<td>—Common infrastructure such as transportation, communications and utilities</td>
<td>Gordon (1996), Lazerson (1990)</td>
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<tr>
<td>—Common pool of human talent such as skilled professionals or specialized labor</td>
<td></td>
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<td>—Common educational, training and coaching facilities for workers</td>
<td></td>
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<tr>
<td>—Common educational, training and coaching approaches for workers</td>
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<tr>
<td>—Common university, research center and technology institute specializations</td>
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<td>—Common risk capital markets</td>
<td></td>
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<tr>
<td><strong>IV.—“Common Glue”</strong></td>
<td></td>
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<tr>
<td>—Explicit leaders are accepted by all of the cluster’s economic agents</td>
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<tr>
<td>—Explicit leadership roles include:</td>
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<tr>
<td>—Knowledge sharing coordination</td>
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<tr>
<td>—Coaching future leaders of the cluster’s firms</td>
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<td>—Dispute arbitration</td>
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<td>—Vision and driving change</td>
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Appendix C: The VRIO framework (Barney et al, 2012).

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>Competitive implications</th>
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<tbody>
<tr>
<td>Value</td>
<td>Rareness</td>
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<tr>
<td>NO</td>
<td>–</td>
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<tr>
<td>YES</td>
<td>NO</td>
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<tr>
<td>YES</td>
<td>YES</td>
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<tr>
<td>YES</td>
<td>YES</td>
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Interview Guide

Background Questions

1. Do you want to be anonymous in the study?

2. Can we quote you?

3. What is your current position in the company? When did you start working at the firm?

4. How many employees are working at the firm? And could you explain briefly about the firm?

5. Which year was the firm established?

6. Regarding the office in Stockholm, are there other companies in the building as well?

Organizational Resources and The Stockholm Cluster

7. Do you know the reason why the firm is situated in Stockholm?

8. What are the main benefits of being part of this precise cluster?
9. How do you perceive the competition and cooperation in the Stockholm cluster?

Follow-up question: could you mention any disadvantages by being involved in the cluster?

10. Concerning firm resources, can you mention the most important assets for the company?

11. Which of these resources have you received from the Stockholm cluster? Follow-up question: what do you think about organizational resources such as human, innovation, financial and network? Do the firm possess them, (if yes) has the startup received them through the Stockholm cluster? and how?

12. How do you view skilled staff members? Is it an important asset for the firm? Following up question: How do you attract new workforce to the firm?

13. By being a tech startup, how did the firm obtain the technological product/service? Follow-up question: how important is innovation/tech development for your firm?

14. How was the tech startup financed? Follow-up question: did the founder use any relevant financial assets from the cluster (for instance loan, investors or incubators)?

15. How does the firm obtain contacts with other firms in the cluster? Follow-up question: how is the network between business partners, or other agents, perceived in the cluster?

16. Which are the most favorable resources that the firm possesses and how do the startup achieve market success with them? Follow-up question: how hard is it for the competitors to take/imitate the firm’s main assets?

International Competitiveness

17. Do you know which year the company became international?

18. How did the firm expand abroad?

19. Do you know the reason why the company wanted to expand internationally?

20. Which of the firm resources did you use internationally? Follow-up question: did the firm use any different resources for the international market in order to succeed?

21. What is the startup’s strength (most favorable resources) internationally based on the product/service? Follow-up question: which specific
resources did the firm use in order to receive this strength internationally?

22. How can the firm stay successful in the long-run on the international market?

23. In regard to the Stockholm cluster, did the firm receive any other support from the cluster to gain beneficial results internationally? Follow-up question: has the startup gained resources from their cluster that their competitors do not possess?

Additional Questions

24. Do you have something more to add regarding the RQs?

25. Could we contact you if we have additional questions?

Appendix D: The interview guide, established by the authors (2019).

<table>
<thead>
<tr>
<th>Company</th>
<th>Respondent</th>
<th>Interview appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tink,</strong> - Offers a mobile application for banking</td>
<td>Daniel Kjellén Title: Founder and CEO</td>
<td>Google Hangout call interview: 2019-04-26 Time: 11:00-11:35</td>
</tr>
<tr>
<td><strong>Northvolt,</strong> - Offers sustainable electronic batteries</td>
<td>Peter Carlsson Title: Founder and CEO</td>
<td>Phone interview: 2019-05-06 Time: 11:00-11:30</td>
</tr>
<tr>
<td><strong>Company X,</strong> - Offers a digital platform for gaming</td>
<td>Anonymous X Title: Founder and CEO</td>
<td>Skype interview: 2019-05-07 Time: 14:00-15:00</td>
</tr>
<tr>
<td><strong>Company Y,</strong> - Offers personal data support</td>
<td>Anonymous Y Title: Co-Founder and Chief Revenue Officer</td>
<td>Phone interview: 2019-05-10 Time: 11:00-11:30</td>
</tr>
<tr>
<td><strong>Storytel,</strong> - Offers a digital platform of audiobook, and books</td>
<td>David Wester Title: Growth Developer</td>
<td>Google Meet interview: 2019-05-14 Time: 15:00-15:35</td>
</tr>
<tr>
<td><strong>Appjobs.com,</strong> - Offers a digital platform of jobs</td>
<td>Tobias Porserud Title: Thought Leadership</td>
<td>Phone call interview: 2019-05-15 Time: 15:00-15:30</td>
</tr>
</tbody>
</table>
Appendix E: The seven empirical cases, designed by the researchers, 2019.

Appendix F: Location of the empirical cases in the Stockholm region. Map is based on five of seven cases, since two of them are anonymous (Corell and Pkhikleshvili, 2019).

<table>
<thead>
<tr>
<th>Resources and Capabilities</th>
<th>Value?</th>
<th>Rare?</th>
<th>Costly to Imitate?</th>
<th>Supported by the Organization</th>
<th>Competitive Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resource - Intangible</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitive Advantage</td>
</tr>
<tr>
<td>Financial resource - Tangible</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Competitive Parity</td>
</tr>
<tr>
<td>Innovation/Technology resource - Tangible</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes/No</td>
<td>Yes</td>
<td>Temporary Competitive Advantage</td>
</tr>
<tr>
<td>Alliances and relationships resource - Intangible</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitive Advantage</td>
</tr>
<tr>
<td>Reputation of the Stockholm cluster - Intangible</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitive Advantage</td>
</tr>
</tbody>
</table>

Appendix G: Organizational resources and capabilities put into the VRIO framework in order to see if the resources will generate with benefits. Made by the authors (2019).