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From Office Space to Seal of Approval

A qualitative embedded case-study exploring the benefits of
joining a business incubator

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Abstract

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Key words: business incubator, startup, credibility, seal of approval, incubation benefits, liability of newness, entrepreneurial challenges

Research question: What role does business incubation play for a startup's ability to overcome challenges and signal credibility?

Purpose: This paper aims to further investigate the importance of credibility as an incubation benefit in relation to other incubation benefits, and what effect it has on the incubatees ability to signal credibility towards external actors.

Methodology: A qualitative embedded case study was conducted, where six embedded cases of startups were interviewed through semi-structured interviews. The study had an abductive approach in order to fully build a theoretical framework around the case.

Empirical foundation: The empirical foundation consists of primary data that was collected from interviews with six founders of current and previously incubated startups at Sting and additional secondary data from previous literature.

Conclusions: From the research it was concluded that incubation acts as a strong support system in overcoming challenges caused by liability of newness. While incubation houses many services and benefits, credibility was an overarching benefit that the startups gained from joining the incubator.

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1. Introduction

In the introductory chapter a background of incubators and their role in the ecosystem is presented. In addition the purpose of incubation is described from the perspective of the incubatees. Then the problem and aim is presented, which the research question is based on, followed by a description of the scope and focus of the paper.

1.1 Background

Setting out to start a new venture has always posed numerous complex decisions and challenges for the entrepreneur. The landscape for startups has become rapidly changing, with companies struggling to survive during their first couple of years, with the survival rate of startups measuring as low as 8% (Startup Genome, 2019). Some reasons why so many startups fail early on is due to the rapid pace of technology development and a lack of entrepreneurial experience (Blank, 2013; Bruunel et al., 2012). Meanwhile, a major reason for many startups' demise is the difficulty in finding resources. Investors have the potential to unlock benefits through contribution of financial and social resources otherwise not available to the entrepreneur, making it a key activity for many entrepreneurs (Kaiser & Berger, 2020). A study done by the European Commission (2015), found that out of every 10 businesses are small and medium-sized companies (SME), and 9 out of every 10 employees work for a SME, showing that they account for the majority of the global economy, thereby proving the importance to support them, for example through incubation.

One approach to the issues of the hardships of novice ventures, and how to help them overcome these hardships, was the creation of business incubators (BI), where startups can join and become incubatees. The first incubator started out in the United States in 1959 by Joseph Mancuso, when he leased out workspace in his family-owned warehouse to small firms and provided services to increase their chance of survival (Kilcrease, 2012). During the 1980s, various forms of incubators and innovation centers started spreading in the US and the rest of the world and they have since then been a part of most economic ecosystems in developed countries (Bruunel, Ratinho, Clarysse, & Groen, 2012). Bruunel et al., (2012) explains the evolution of incubators through generations. The first generation focused on just leasing office space and sharing resources, while the second generation expanded into incorporating managerial and knowledge-based services to adhere to the lack of experience of novice entrepreneurs. The third generation, where incubators are currently acknowledged to

be, further built on the framework by putting emphasis on integrating external capital into the incubation process through networks of industrial partners, investors and venture capital firms. Newer research suggests incubators have entered the fourth generation, where they have internationalized (Allahar & Brathwaite, 2016).

According to Bergek and Norrman (2018) the main benefits from incubation are shared office space and support services to promote bootstrapping, professional coaching, as well as access to internal and/or external networking. Bøllingtoft (2012) describes how incubators can facilitate many of the early-stage entrepreneurial issues and puts emphasis on Stinchcombe's (1965) notion of 'liability of newness'. She argues for how business incubator services can establish supportive environments and provide the resources required to overcome their 'newness'. The liability of newness was a concept introduced by Stinchcombe (1965), describing how a new firm carries the highest risk of failing early on in its development and decreasing the longer it survives. This, due to a number of challenges, such as external legitimacy (Singh, Tucker & House, 1986), establishing relationships, raising financial capital (Aldrich & Auster, 1986) and collaboration with powerful actors. Singh, Tucker and House (1986) pointed out external legitimacy as the overarching challenge, as well as Witt (2004), who noted that startups tend to have less credibility than more established companies.

Authors such as Moser, Tusamsjan and Welpé (2015) and Landström (2017) concur with previous challenges, adding hiring of qualified labour as an important challenge for startups. Being a part of an incubator has proven to signal credibility (Samaeemofrad, van den Herik & Verburg, 2016; Sherman & Chappell, 1998) and that the credibility gained from an incubator is of value to the survival and success of its incubatees. Previous research has also shown that joining an incubator often leads to access to many different forms of social capital, exposure towards potential investors, customers and other collaborators, as well as direct access to tangible resources, such as coworking space and shared resources (Samaeemofrad, van den Herik & Verburg, 2016). These benefits and resources that startups can take advantage of in an incubator can be the defining factor whether a startup will survive and succeed. The research also remarks how the startup's ability to utilize and exploit the available resources during incubation can lead to great variance if startups succeed or not (Breivik-Meyer, Arntzen-Nordqvist & Alsos, 2020; Bandera & Thomas, 2017).

Incubators are acting on a micro level, they are on a macro perspective part of innovation systems (IS) approach, which has evolved to encapsulate and enhance innovation, knowledge- and resource sharing and interdisciplinary absorption of change (ed. Edquist, 2006). As innovation systems and incubators can share benefits and purposes for companies and novice entrepreneurs, they synergize well together in practice as well. Sweden, which has an established and successful national innovation system (Chaminade, Zabala & Treccani, 2010), also houses prominent examples of regional innovation systems, such as the Kista Science City which has grown to become a leading innovation cluster in Sweden, partly due to Ericsson's headquarters being located there (Anttiroiko, 2005). Further literature on innovation systems draws upon spatial benefits such as spillover effects (Breschi & Lissoni, 2001), facilitation of innovation (Cantù, 2010; Fagerberg, 2006 in ed. Edquist, 2006) and leveraging networks (Bøllingtoft, 2012). These are also benefits that incubators have integrated in order to solve entrepreneurial challenges, as well as incubators acting as a mediator between innovation systems and their incubatees (Dee, Gill, Lacher, Livesey & Minshall, 2012).

1.2 Problem

As aforementioned, incubators and their different activities have proven to provide several positive benefits for startups in incubation, but upon reviewing literature on the topic it's argued that there is a lack of research concerning the incubators specific impact on the credibility of its incubatees. Benefits have previously mostly been concerned with services that have evolved throughout the generations of incubators. Meanwhile, the indirect benefits of incubation, such as purely the association benefits of being a part of an incubator and having earned their seal of approval has been less documented. Due to liability of newness, startups have a hard time proving the worth of their business, which makes it difficult to signal credibility when seeking capable employees and external financing (Witt, 2004). While there are several strategies towards acquiring credibility for such activities, joining an incubator has been reported to be one of them (Samaeemofrad, van den Herik & Verburg, 2016; Sherman & Chappell, 1998).

This paper hopes, for academia, to lift the importance of studying credibility as an incubation benefit and encourage more research in order to expand the understanding of an incubation

process and the needs of startups. This, in order for practitioners to enhance their services and to give startups a better understanding of what to expect from joining an incubator.

1.3 Aim and research questions

This paper aims to further investigate the importance of credibility as an incubation benefit in relation to other incubation benefits, and what effect it has on the incubatees ability to signal credibility towards external actors. Benefits of joining an incubator will be assessed with a focus on credibility.

The aim of the paper is to answer the following:

What role does business incubation play for a startup's ability to overcome challenges and signal credibility?

1.4 Scope and focus

The scope of this thesis is first and foremost, that the business incubator (the case study) and its embedded startups are geographically located in and integrated into the entrepreneurial ecosystem of Stockholm, Sweden. While there are a lot of premises for incubation that are general and global, incubation is to a large extent dependent on contextual factors, which make the result of this thesis above all applicable to business incubators in urban areas in Sweden. In terms of the approach, incubation benefits will be primarily investigated through the perspective of incubatees in order to get a grasp on which benefits exist within Swedish incubators, how these are perceived by the recipient and which benefits are of actual value for the incubated startups. However, the focus throughout will be on how or if these benefits and activities eventually lead to an increase in credibility, as this is the main challenge that has been identified in the literature without having a given solution. In doing this, the weight of this paper will be to which extent incubation benefits accumulate into startup credibility. These insights will then be used in order to map out how the benefits are intertwined and dependent on each other.

2. Literature review

The following review of literature aims to provide a theoretical framework upon which the analysis will be based. The literature review will raise the most important theories and models that are found relevant to the aim and research question.

2.1 Innovation systems

Innovation systems can widely be regarded as the activities and behavior of organizations and institutions in an environment that facilitates product and process innovation to different degrees (ed. Edquist, 2006). For an organization, this external environment can either create incentives or obstacles for innovation and Fagerberg (2006 cited in ed. Edquist, 2006) further remarks how collaboration and networking with other companies and institutions is crucial as innovation rarely occurs in isolated organizations. The level of innovation is bound both by the spatial location of the systems, but also in how the systems facilitate collaboration between private and public sector, where Asheim (2012) urges the equal importance of innovation systems integrating both public and private agents. This is enabled through the application of the Triple Helix model (TH), where academia, the industry and the public institutions/government collaborate (Etzkowitz & Leydesdorff, 2000 cited in Cantù, 2017). The Helix model enables a faster rate of innovation diffusion (Cantù, 2010), meaning the rate of which new products and services become accepted and adopted by the customers (Smith, 2015). Additionally, it provides knowledge and technology spillover effects within the system, which leads to enhanced innovation and economic growth (Cantù, 2010). Innovation systems are in that regard shaped and formed by contextual factors, often dependent on national, regional and industrial environments. These contextual factors can be intentionally created through infrastructure, networks and organizational collaboration in order to create conditions that promote innovation.

Innovation systems generally occur in three configurations: (1) national innovation systems (NIS), (2) regional innovation systems (RIS) and (3) sectoral innovation systems (SIS) (ed. Edquist, 2006; Chaminade, Zabala & Treccani, 2010; Smith, 2015), also called technological innovation systems (TIS) (Lindholm-Dahlstran, Andersson & Carlsson, 2018). As implied by its name, NIS refers to the system put in place on a national level, consisting of example national efforts into R&D and internationally oriented firms and universities (Chaminade, Zabala & Treccani, 2010). RIS on the other hand are location-specific systems that are

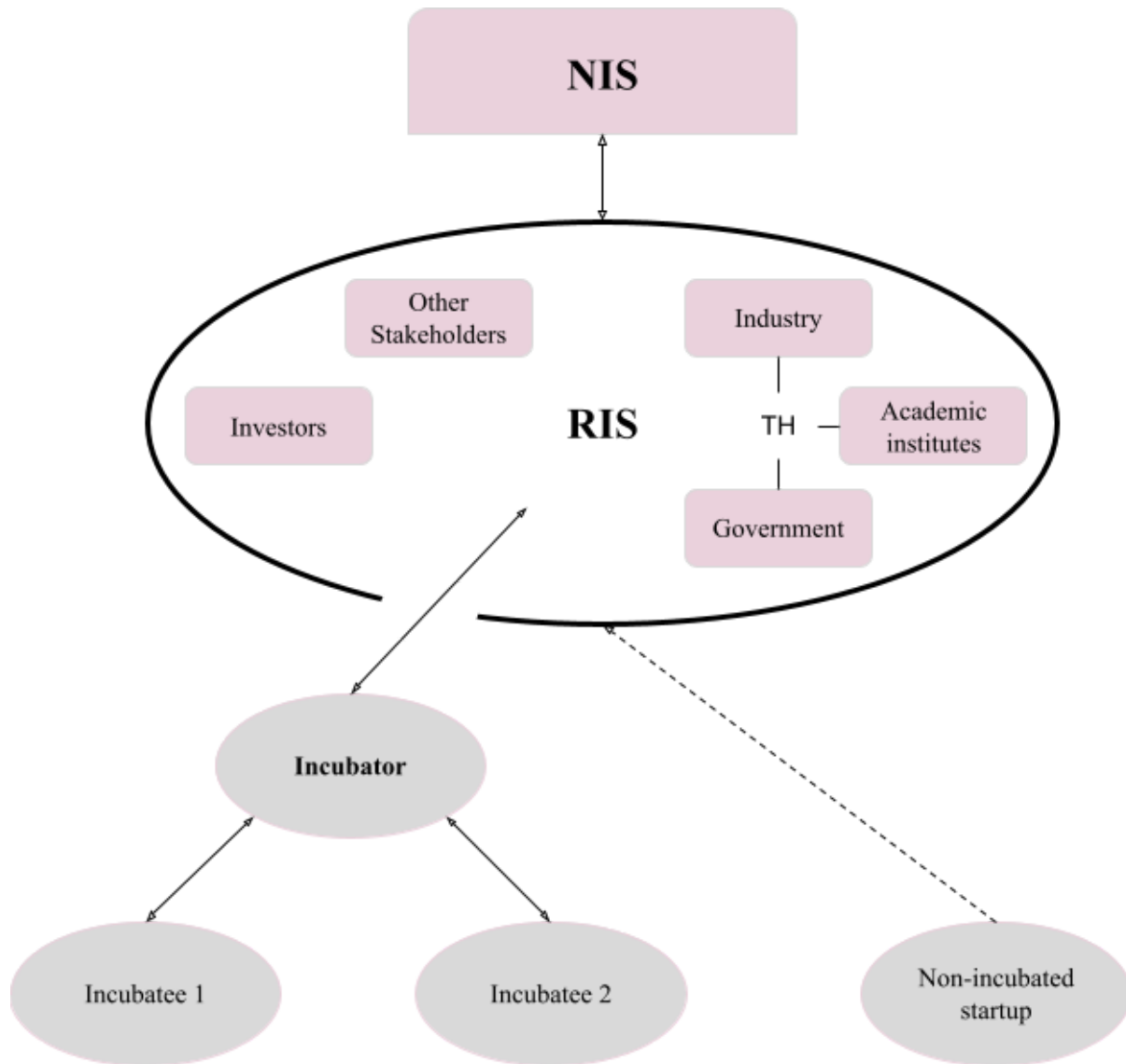
effectively linked to a geographical area, such as Silicon Valley in the United States, Motor Sport Valley in the United Kingdom (Smith, 2015) or Kista in Stockholm. Further specialized and focused are SIS, which are industry-specific innovation systems that grew out of the notion that while NIS and RIS enclose significant spatial features, industry-specific settings and dynamics are too diverse for a NIS or RIS to fully encapsulate (Carlsson et al., 2009 in Lindholm-Dahlstran, Andersson & Carlsson, 2018). Companies can by operating multi-dimensionally take advantage of all listed IS, where SIS serve most relevant in converting industry-specific knowledge into economic activity through entrepreneurial activities (Lindholm-Dahlstran, Andersson & Carlsson, 2018). The latest contribution to IS literature is the emergence of global innovation systems (GIN), which embodies all IS approaches in order to create internationalized systems which could better support the increasing globalization of organizations (Binz & Truffer, 2017).

2.2 Incubator's role in the ecosystem

In terms of integrating startups into the ecosystems, incubators play an important part in facilitating a bridge between startups and their innovation system, most notably their RIS. Incubators foster an environment of innovation, encourage entrepreneurship and can help integrate the startups into the innovation- and ecosystem that help them grow, create new job opportunities and cultivate economic growth on both a regional and global scale. Incubators can be either non-profit, and set up by government agencies with the goal of promoting regional development or for-profit created by private individuals or organizations aimed at generating profit (Autio & Klofsten, 1998; Cooper, 1985; Mian, 1996; Marrisfield, 1987 in Grimaldi & Grandi, 2005). Incubator services are intended to assist early-stage businesses in being more competitive on the market, but how each incubator does so varies greatly. Sanyal and Hisam (2018) discuss how startup entrepreneurs face a number of obstacles and challenges, including seeking capital, adhering to strict labor laws, finding a market for their goods, and dealing with social and cultural issues. Reasons why so many startups fail early on is due to the rapid pace of technology development (Blank, 2013; Bruunel et al., 2012), where Fagerberg (2006 cited in ed. Edquist, 2006) shows connections to how RIS systems can enhance both innovation, while also speeding up innovation diffusion (Cantù, 2010). The lack of an efficient and welcoming environment for entrepreneurship, as well as a lack of funding, creates these issues. Incubators can play an important role in assisting and encouraging aspiring entrepreneurs as they start their businesses (Sanyal & Hisam, 2018).

Incubators with an integrated Triple Helix model (TH), also serve an additional benefit to their incubatees as they are further able to facilitate knowledge-generation, collaboration and understanding of the socio-economic systems to give better market research and analysis for their incubatees (Oliviera, Marins & Delamaro, 2017).

Figure 2.1 - *Incubators role in the ecosystem*



2.2.1 Types of incubators

Grimaldi and Grandi (2005) argue that there are four main types of incubators in the ecosystem. Those are Business Innovation Centres (BICs), University Business Incubators

(UBIs), Independent Private Incubators (IPIs), and Corporate Private Incubators (CPIs). Each type brings its own support and benefit for the incubated startups. BICs are public incubators that are mainly set up to offer a basic set of services to startups, such as office space, infrastructure, communication channels and help with external partners and financing options. Another example of public incubators are UBIs. They provide similar services and benefits as BIC but are generally more connected to academia and scientific research, many times helping new knowledge-based ventures with technology, capital, IP and the know-how to make their research and products ready for market. Since municipalities increasingly see science and technology as a great way in strengthening the nation and regional innovation system, and subsequently the economy, this is a way for governments to invest in both academia and their local economies (Heydebreck, Klofsten & Maier, 2000; Grimaldi & Grandi, 2001).

According to Von Zedtwitz (2003) there can be two categorizations for private incubators. One is IPIs that are founded by either a single individual or a group of individuals (could also be a company) with the sole purpose of helping promising entrepreneurs create and grow their new ventures. They invest their own capital into the startups in return for equity in the company. In that way they have a vested interest in the company becoming successful and the incubator having a good return on investment. The other is CPIs and are incubators that are owned and run by larger companies with the purpose of investing in and supporting the emergence of new independent business units. These new business units (so called corporate spin-offs) generally start from in-house research project spillover and come from outcomes that are part of diversification strategies (Von Zedtwitz, 2003). Categorisations such as this can give indications on how incubators and startups should position themselves in a strategic manner.

2.3 Liability of newness

Stinchcombe (1965) first introduced the concept of ‘the liability of newness’ encapsulating the challenges that young entrepreneurs face on the notion that firms have a higher risk of failure/death in its early stages which decreases over time. These challenges are for example learning curves in inventing new roles, settling into roles, social settings, high dependency on social relationships with strangers and lack of trust with business partners and customers (Stinchcombe, 1965). Baum (1996) expands on the theory, claiming its underlying

assumptions are that novice firms lack influence and endorsement for higher status players, relationships with powerful actors and the legitimacy that experience on the market and within the ecosystem provides. Further, a key reason for why so many startups fail early on is due to a lack of entrepreneurial experience (Blank, 2013; Bruunel et al., 2012).

While the concept was introduced as early as 1965, Cafferata, Abatecola and Poggesi's (2009) literature review shows it still holds relevance today and has become a theoretical foundation for many other constructs to the theory. Such constructs are the liability of smallness (Freeman, Carroll & Hannan, 1983), liability of adolescence (Fichman & Levinthal, 1991) and liability of aging (Barnett, 1990; Baum & Oliver, 1991; Barron, West & Hannan, 1994). For established firms, the liability of aging is becoming increasingly relevant as it entails how mature companies face liabilities as their technology becomes obsolete over time if they fail to innovate and adapt. However the concept is less relevant in terms of startups as it refers to companies that have survived the startup phase. The liability of smallness suggests that smaller firms have a higher risk of failure than larger ones, due to its deficient capability of recruiting qualified labour, raising financial capital, higher administrative costs (Aldrich & Auster, 1986). Additional reasons why smaller firms are expected to perform worse than large ones are that they are less likely to achieve economies of scale benefits (Bonaccorsi, 1992) and a lack of legitimacy which leads to legitimacy problems towards external stakeholders (Baum & Oliver, 1991). The entrepreneurial challenges of liabilities of smallness resemble those in liability of newness, only that they take different approaches, where Wholey and Brittain (1986 in Cafferata, Abatecola & Poggesi, 2009) directly linked the two theories together. The liability of adolescence stems from the newness approach, however Fichman and Levinthal (1991) argue that new firms experience a "honeymoon" phase. They argue that this "honeymoon" phase is due to initial assets from the entrepreneurs, during which time they are at little risk of failing and that the firm is at most risk of failure in its adolescent years when they run out of these initial assets.

Reverting back to the umbrella term of liability of newness, Singh, Tucker and House (1986) expanded on the theory, arguing that external legitimacy, through association and collaboration with powerful actors, is the key factor in overcoming the challenges of a novice firm. They demonstrated how endorsement from external actors could increase the firm's capabilities of creating relationships and acquiring resources, as well as how such external support results in a decrease in failure rate. Furthermore, Singh, Tucker and House (1986)

suggests that novice firms gaining institutional support drastically reduces the selection pressure and increases their chances of survival.

Lastly, Cafferata, Abatecola and Poggesi (2009) notes that the research on different types of liability is largely conducted in the US and Canada, leaving European research scarce. Regardless, the literature on these concepts are globally used in the research on organizational mortality, although authors continually urge for European data on the phenomena as well (Cafferata, Abatecola & Poggesi, 2009; 2012). Meanwhile, studies have been done in Europe on the challenges of SMEs, without applying liabilities of newness. For example the European Commission (2015) conducted a study on SMEs, where they found that in their startup phases, they experienced challenges of entering a new market unprepared, lacking entrepreneurial knowledge, expertise and financial resources. The empirical findings on the challenges of SMEs from the European Commission study, correlates strongly with the challenges presented in the literature on liabilities of newness. As a result, while little research of liabilities of newness has been done in Europe, indications show that it holds relevance for European startups as well. Thereby, European incubators have the ability to play an important role in fostering these SMEs that are seeking to enter the market and overcome liabilities of newness (Misati, Walumbwa, Lahiri & Kundu, 2017; Suarez-Ortega, Garcia-Cabrera & Knight, 2015). Nevertheless, the liability is part of every startup's journey and the goal of any incubator in any region is to help alleviate the initial growing pains by providing different sorts of benefits.

2.4 Benefits from joining a business incubators

Business incubators impact several areas and groups in our societies. They can be judged differently based on the perspective in which they are discussed. This section specifically discusses incubation benefits from the perspective of the incubatees. What all incubators share is the ambition to increase the survival rate and success of its incubatees, but as previously mentioned there are several different types of incubators (Grimaldi & Grandi, 2005) and every incubator has different goals, resources and infrastructure, based on the needs of its incubatees (Dee et al, 2012). Therefore even when discussing incubatees specifically, the benefits of a certain incubator should be discussed in relation to its specific goals (Bears, 1998). It is therefore an important fact that conclusions regarding benefits from one incubator may not always be applicable to another incubator. Although according to

a summary of previous literature done by Bergek and Norrman (2008) the following four components of an incubator have been argued the most important: shared office space at a favourable price for the incubatee, shared support services to promote bootstrapping, professional coaching, as well as access to internal and/or external network provision.

2.4.1 Traditional benefits

Standing as one of the first benefits provided by incubators, offering coworking space to their incubatees is still one of the most common incubation benefits. While the access to professional facilities with meeting rooms, a functioning reception and ICT can be valuable for bootstrapping purposes, the common rooms can also enable peer-to-peer networking between entrepreneurs within the program (Dee et al, 2012). In some incubators these entrepreneurs are often within the same industry (Dee et al, 2012) which according to Samaemofrad, van den Herik and Verburg (2016) indicates that these networking activities are of high value. In addition, Qiu et.al. (2017) argues how these networking activities can have a positive spillover effect. Their study showed that in recent years, regional collaboration has shown a greater positive influence on startup innovation than international collaboration. While there sometimes might be a blind belief that international partnership is better for entrepreneurial knowledge spillover, there is an even greater positive effect when working with regional partners (Qui et.al., 2017).

There may also be spatial benefits of joining an incubator's coworking space, since simply having a business address in an attractive RIS, can lead to increased perceived credibility and legitimacy if the coworking space of the incubator is properly placed (UKBI, 2009 cited in Dee et al, 2012). If the incubator is properly integrated into a university or other institutions the incubatees may also access advanced technology laboratories, equipment and other relevant resources (Phillips, 2002; Hackett & Dilts, 2004b; Koh et al, 2005 & Phan et al, 2005 cited in Dee et al, 2012).

Besides the tangible assets, a lot of value is given through access to intangible assets as well. Incubators are meant to offer a more supportive environment than the open market by enabling better access to social capital (Bandera & Thomas, 2017) and creating an environment that fosters collaboration on innovation performance (Sedita, Apa, Bassetti & Grandinetti, 2019). Inside of the incubator, the startup gains instant access to internal social capital in terms of support from experts and mentors in various fields, which can accelerate

the learnings of the team (Samaeemofrad, van den Herik & Verburg, 2016). A startup lacking credibility can use an incubator as a mediator between them and other external networks and resources (Dee et al., 2012), as well as institutions that offer public grants and programmes (Bergek and Norrman 2008). In addition incubators often create exposure towards potential investors and other collaborators for its incubatees through social media, newspapers, and other press, different networking activities (Samaeemofrad, van den Herik & Verburg, 2016) or simply from the spatial benefits of coworking location as stated in the previous paragraph.

According to Dacin, Dacin and Matear (2010), an increasing number of research shows linkage between organizational success and social ties. The research of Bandera and Thomas (2017) agrees and shows that there is a strong correlation between *utilization* of social capital and startup survival. Although they also proved the correlation between *access* to social capital and startup survival not to be as strong. In order to benefit from the social capital available in an incubator, something must bridge the gap between access and utilization of social capital (Bandera & Thomas, 2017; Breivik-Meyer, Arntzen-Nordqvist & Alsos, 2020). Acting as a mediator between the incubatees and available social capital is therefore one of the most crucial tasks of an incubator (Bandera & Thomas, 2017; Breivik-Meyer, Arntzen-Nordqvist & Alsos, 2020; Dee et al., 2012). However, while incubators take measures in order to increase utilization of social capital, it boils down to the individual entrepreneur as well to make use of the resources available to them. According to Bandera and Thomas (2017) the utilization of social capital is also positively influenced by social skills, such as the entrepreneur's ability to interact efficiently with others, but also its ability to capitalize on their established network ties.

Busch and Barkema (2020) discuss how incubators often play a crucial role in creating and administering the social networks for startups and their incubatees. These networks can be essential for the success or failure of their new started ventures. The authors define social embeddedness as the depth and extent of an individual's ties to a specific environment or community. Embeddedness can lead to enterprise development by facilitating access to benefits from within the structure of that network (Dushnitsky & Shaver, 2009). However, too much embeddedness, so called over-embeddedness, can also lead to a lack of diverse information and knowledge, a feeling of being locked into a cohesive network, or even psychological pressure (Busch and Barkema, 2020).

2.4.2 Credibility benefits

Due to liability of newness, which indicates that small companies are operating with higher risk than more established companies, startups generally lack credibility (Witt, 2004). According to Singh, Tucker and House (1986) external legitimacy is the greatest challenge for startups. This lack of credibility can create a shortage of qualified labor (Aldrich & Auster, 1986) as well as impede a startups ability to raise financial capital (Landström, 2017). In addition customers and suppliers are often wary of doing business with new ventures for the same reason (Bhidé, 2000).

One of the main limiting factors for the growth of startups is the shortage of qualified labor (Williamson, Cable & Aldrich, 2002). The authors argue this to be a consequence of high levels of risk and uncertainty, as well as a weak brand recognition. This claim is supported by Aldrich and Auster (1986) that argues that new startups have a disadvantage in recruiting new employees as well as Blank (2013) that mentions that it is difficult to find employees that are risk-taking enough to work at a startup. Arguably the best way to tackle this shortage is through a strategy of distinctive employer branding (Kristof, 1996; Moroko & Uncles, 2009; Williamson, Cable & Aldrich, 2002). One of the benefits that were proven to be of high impact on employer branding according to Moser, Tumasjan and Welpé (2015) were legitimacy of the startup founders and the startup itself. While, (UKBI, 2009 cited in Dee et al, 2012) previously argued for how spatial factors such as address of the coworking space can increase credibility and legitimacy for its startups, Moser, Tumasjan and Welpé (2015) also mentions how office location can serve as an important factor for employer branding.

Signalling is often used to describe how companies are reducing informational asymmetry towards potential investors and to signal legitimacy and trust (Landström, 2017). Nunes, Felix and Pires (2014) article concerning funding criteria for investors indicates that the perceived personality and previous experience of the startup team is what weighs the heaviest in their decision-process. Signalling is therefore especially important for startups due to its lacking track-record and therefore they need to convince the investors of their ability to survive and succeed, as well as the competence and experience of the staff and board (Landström, 2017). In the case of startups, Landström (2017) argues that the use of symbolic signals is of great importance since it is lacking other established predictors of success due to its newness. He goes on to list types of symbolic signals, such as the startups exposure in media and association to other strong brands of people or ventures. Furthermore Dacin, Dacin

and Matear (2010) argue for how a combination of business and social contracts, in terms of networks and industrial track-record, can have a major impact on its ability to signal credibility and gain the confidence of investors. A startup joining an incubator, gains the social benefits of the incubator's networking power, giving them a greater chance at achieving credibility to investors. Colombo (2021) outlines crucial conditions that affect the signaling effectiveness at the sender, receiver, and environment levels. The sender (startup) can instead of a proven track record and during its initial state of newness use its human capital, past success with crowdfunding, perceived passion from the entrepreneurs and more to increase the sender signal. Furthermore, a study on social proof by Bapna (2019) showed that investors more frequently invested in ventures that had been invested in by others. In this, receiving early investments served as an important contributing factor to the entrepreneurs credibility and their ability to effectively signal themselves and their product or service in a positive and successful way to the outside world.

In several incubator contexts (Sting, n.d.; Shieber, 2021; Arrington, 2009) the term "seal of approval" is used to describe the phenomena of a boost in credibility for incubatees simply as a result of the public approval from its incubator. The Cambridge Dictionary (2021) defines the term as "a statement or sign that someone in an important position approves of something". Furthermore, the seal of approval can be identified in several articles where it is discussed how it can lead to increased credibility and reputation for the incubatee, especially if the incubator is a well-known one (Samaemofrad, van den Herik & Verburg, 2016; Sherman & Chappell, 1998). When joining an incubator, the incubatee must always pass a number of selection criterias set by the incubator, granting the startup a seal of approval once entered into the program (Samaemofrad, van den Herik & Verburg, 2016). Associating a startup with an incubator can also lead to transferring of certain brand attributes from the incubator, its tenants and other connected actors in the incubator's network. This was portrayed by Keller (1993) as associative network models of memory that was later on empirically supported by several authors and is considered to be the dominant paradigm in literature concerning branding (Morrin, Lee & Allenby, 2006; Teichert & Schontag, 2010). The co-branding benefits for a startup to join an established incubator and network, in addition to gaining its seal of approval, is that it enables it to jumpstart the development of its brand by associating itself with a brand of high value and relevance.

3. Method

In this section, the process of the paper is presented and which methods are used in order to collect, process and analyse data. The selection process of incubators and companies is presented as well to provide understanding for how those choices were best suited for the research question. Ethical considerations are also discussed.

3.1 Research design

The research was of a qualitative design, where Bryman and Bell (2018) describes it as a less static and structured design than a quantitative design. They argue how it allows the researchers to explore how social settings, relationships and contexts affect actor's meanings and how these can change over time (Bryman & Bell, 2018). Given the thesis, we sought to understand the experiences, processes and features that incubation provided, where we found that qualitative research is better suited for that purpose rather than a quantitative research that is dependent on quantifiable data and statistics.

The research was of an abductive nature, where the empirical work and theoretical work went hand in hand. An abductive approach is when both inductive and deductive approaches are used back and forth, allowing the theoretical framework to be developed continuously over the course of the study (Dubois & Gadde, 2002). At first, the theory and literature was investigated to provide a basis for the qualitative investigation. The developed framework guided us in our interviews, which resulted in empirical findings, which revealed new factors and perspectives, to which we then went back and improved the theoretical framework again.

3.1.1 Study design

In order to best answer our research question, we chose to conduct an embedded case study. While the incubator Sting was the case we studied, we studied it by collecting data from embedded units within the case, which was a number of incubated startups within Sting. The embedded case study is an extension of the traditional case study, which Bryman & Bell (2018) describes as an entailing detailed exploration of a case that seeks to understand behaviour, values, beliefs and experiences of individuals in order to find commonalities and frequently promoted theoretical reflections. Another take on the definition of a case study method is that it seeks to "explore a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection

involving multiple sources of information... and reports a case description and case themes” (Creswell, 2014, p.97). While the startups that were interviewed could be regarded as separate cases, Yin (2003) expresses how an embedded case study allows the researcher to look at subunits that are located within a larger case, in order to make better sense of the larger case. Budiyanto, Prananto and Tan (2019) further notes how the method is especially relevant for studying corporate groups consisting of one parent (the case) and several subsidiary entities (embedded units), where features, contexts and processes are explored. They also conclude that “an embedded case is developed from unique characteristics of a selected case in order to investigate the peculiarity of each embedded case. The exploration of the embedded case, eventually, will elaborate the explanation of the case as a whole” (Budiyanto, Prananto & Tan, 2019, p.14).

3.2 Selection of incubator

We decided early on to focus our research on Sweden since we believe that Swedish startups would be more intrigued to support Swedish students and since it would enable the interviews to be performed in the native language of both the interviewers and the interviewees. This could arguably lead to more detailed and accurate answers from a bigger set of startups, thereby improving the quality of our work. In addition Sweden is considered the second most innovative country in the world, which provides evidence of the relevance to further explore the factors of the country's success (Cornell University, INSEAD & WIPO, 2020). Within Sweden we also choose Stockholm since it is the city with the biggest startup ecosystem of Sweden (Startup Genome, 2020). According to Stockholm Stad (2020) there are seven business incubators in Stockholm. Three of the organizations behind these programs offer both accelerate and incubate programs, while four only offer programs for incubation.

We decided to limit the empirical studies to one single well-known Independent Private Incubator. We further limited the selection process to incubators which were properly integrated into the RIS of Stockholm and that reflects many attributes encountered in our research. These decisions were made since we hope that it will increase reliability and to some degree offset the generalization weakness of case-studies as most incubators will find some resemblance in the chosen organization. The incubator we choose for this purpose is Sting. Sting is a successful incubator having won Nordic Startups Award for best Accelerator Incubator in 2020 (Nordic Startup Awards, 2020) and having incubated a series of successful

companies, such as Karma and Sellpy. Sting has also accumulated a high survival-rate of 69% (Sting, n.d.) among their incubatees and encapsulates many incubator-specific attributes, such as strategic advantages through being partnered with the RIS through the triple helix model, where the industry, academic institutes and the government is represented on the incubator's board. Sting is also one of the more well-known incubators in Sweden, where our test pilot interviewee acknowledged it as:

“Most people [within startups] talk about Sting as ‘the’ incubator to approach if you are in need of help with sales and investors”.

Lastly, Sting communicates that their seal of approval provides a benefit for its incubatees, which correlates with our thesis' aim to investigate credibility, increasing the relevance to involve Sting into our thesis.

3.3 Semi-structured interviews

We choose to conduct semi-structured interviews, as Bryman & Bell (2018) describes it as a fitting choice of data collection strategy for qualitative case-studies, since it allows for follow-up questions in order to delve deeper into interesting thoughts brought up by the respondent. Ahrne & Svensson (2015) also acknowledges that interviews are a characterizing feature of qualitative research papers as they synergize well. Semi-structured interviews enabled us to prepare an interview guide based on the theoretical framework and elements we found important in order to answer our research question. The interview guide provided both comfort for the interviewer, but also greater traceability, structure, comparability and reliability across the interviews as they were, to a large extent, asked the same questions. The questions were structured into sections that discussed different aspects of incubation and different concepts that were important in answering our thesis. Due to the pandemic and geographical limitations, all interviews were conducted on the video-communication platform Zoom. Although we did not find it to be an issue Bryman & Bell (2018) recognizes how digital interviews can to some degree make it harder to interpret aspects such as body language and the mood of the interviewee.

At the start of each interview, the respondents were given introductions where we informed them on the structure of the interview, how it was anonymous and that we would like to

record the interview for later analysis and transcription if they felt ok with that. Further, we explained that one of us would lead the interview, one would assist and one would take notes, in order for the respondent to know who he would be addressing for the majority of the interview, in hopes that it would make them more comfortable. We explained how their connection to Sting made them relevant for our thesis, but did not reveal our thesis or points of interest as we did not want to influence their answers. The questions for the guide mostly consisted of open-ended questions, in order for the respondent to feel the freedom to give answers based on their perception and experience and not to feel inclined to tell us what we wanted to hear. Denscombe (2017) argues how open-ended questions have a higher tendency than closed-ended questions to provide genuine answers and lead to important insights. Still, one closed-ended question was asked at the end of the credibility segment, in order to give a quantifiable and comparable answer for one of the main themes of the thesis. Also, this reduced the risk of misinterpreting their response, hence increasing confirmability, as they were given a direct question and were always asked to elaborate on their response.

As recommended by Bryman & Bell (2018), a pilot interview was conducted and the interview guide was reviewed afterwards in conjunction with our supervisor before conducting the official interviews.

3.3.1 Interviewed companies

In the presentation of data, we will use Alpha, Beta, Gamma etc. as labels for each interviewee in order for the reader to get a perception of each respondent's experiences. All interviewed companies were incubated during the period of 2017-2020 enabling a variety of maturity. Three companies (Alpha, Beta, Gamma) had a revenue between 0 - 100K, while three companies (Delta, Epsilon, Zeta) had revenues between 1 - 4.5M. All respondents were either top executive or in another executive role that enabled them a complete picture of the company. In addition they were all founders of the startups discussed and still had an active role in the company during the interview. With that being said all interviewees had full insights of the company's operations before, during and after the incubation at Sting.

Table 3.1 Overview of interviews

Companies	Interviewees	Entrepreneur's Age	Title	Interview date	Interview duration
Alpha	Steven	20-30	CEO	30/04-21	45 min
Beta	Natasha	40-50	CEO	30/04-21	60 min
Gamma	Clint	20-30	CEO	03/05-21	60 min
Delta	Tony	40-50	CEO	05/05-21	45 min
Epsilon	Bruce	20-30	CSO	06/05-21	45 min
Zeta	Nick	40-50	CEO	07/05-21	45 min

3.3.2 Process of selecting companies

We chose to interview incubatees that were a part of the incubator Sting's program "Sting Incubate". The purpose of the interviews was to gain insights of the experience from the incubatees perspective regarding Sting's activities and specifically how a seal of approval has affected their credibility, ergo their ability to raise financial capital, hire qualified labor and make use of available social capital. The primary requirement was that the company was a part of Sting's program Sting Incubate. We also selected companies that joined Sting between 2017 and 2020. This limited the selection to companies having at least been enrolled in the incubator for close to one year, since younger incubatees may not have had time to experience the effects of the potential credibility gained from the incubation and we wanted to identify if credibility was perceived differently over time.

Further, sampling size and probability sampling were addressed where we aimed to gather a representative population in order to best reflect the research object as well as to increase generalization and external validity. For this purpose, we chose to use the stratified sampling method in order to ensure accurate representation (Bryman & Bell, 2018). We started by setting criterions for which startups would be eligible for our study, as previously mentioned, having been part of the incubation program and having joined between the period of 2017-2020. Then we grouped up the eligible startups in an Excel-sheet and requested through

email, an interview with all of them. From the 54 startups we emailed, 7 of them accepted and were later interviewed, whereas 1 was a pilot interview.

3.4 Secondary data

To begin with, the research started out with a literature review in order to get a broad and deep understanding of the field of research. The research mostly consisted of intense review of literature that was found through keywords such as incubators, startup and credibility. This provided us with a clearer understanding of how incubators had been approached and researched throughout the decades, as well as the contemporary literary discussion on the topic. This research led us to the theoretical framework presented in the previous chapter, which are the main themes that we found relevant to our thesis. The research was conducted through research engines such as LUBSearch, Scopus and Google Scholar, which Backman (2016) argues is advantageous as it's time efficient and provides a wide coverage. In terms of the source criticism, the articles used throughout are peer-reviewed, meaning they have been processed and reviewed by a number of experts within their field. Most other sources are from Sting's own website, where we mostly gathered information about their company and knowing that this information might be biased, claims of having won awards et cetera have been verified. For the most part, original sources have been used in order to avoid inaccurate interpretations and to make sure that arguments and ideas are not taken out of context or that the contexts we apply those arguments match. Lastly, the process of reviewing the literature was based on Bryman & Bell's (2018) five step guide, where notes, keywords and patterns from books and articles were noted down in order to find further relevant literature, where the relevance of articles were determined by titles and abstracts, as well as interesting referred articles were followed up on.

3.5 Validity and reliability

Reliability and validity are important aspects for the authors to bear in mind as they indicate the scientific authenticity of the paper. Reliability and validity can each be divided into external and internal parts, which poses different approaches to assessing the findings of the paper. While validity and reliability are useful in measuring quantitative research, many writers argue it lacks applicability to qualitative research. Guba (1985 in Bryman & Bell, 2018) proposed four criteria to better assess the trustworthiness of qualitative research:

Credibility, which refers to *internal validity* in terms of how believable the findings are, which Bryman and Bell (2018) argue case studies have a great tendency to fulfill. To start with, an extensive literature review was conducted in order to fully grasp the field of incubators, to then continuously apply the empirical findings to the theories and concepts in the results and discussion section. Further, the semi-structured interviews gave us the freedom to pursue lines of thought that touched on theoretical concepts and models with on the fly follow-up questions. The choice of conducting anonymous interviews were also with the intent of allowing the interviewees to give honest and truthful answers without the risk of falling out with anyone or skewing the answers for self-promotion purposes.

Transferability, which refers to *external validity*, in the sense of how the findings can be applied to different contexts. Bryman & Bell (2018) expresses how external validity poses a problem for case studies as they only investigate one, or a small number of, social settings which hampers generalization. In addressing this, we tried to clarify and argue for our choice of study object and research focus as clearly as possible, while still recognizing that the study holds limitations in generalization based on social and business context. However, we argue that while incubators can differ in quality, their value propositions of benefits are to a large extent generic, and where credibility is relevant for all.

Dependability, which refers to *external reliability*, in how the findings would stand the test of time. While the concept of incubators might evolve over time in terms of how services are facilitated or their relevance as entrepreneurial support in general, the challenges of novice entrepreneurs are more robust. We have not found any evidence or arguments indicating a decline in credibility as a relevance to organizational mortality and success, providing external reliability that the results would prove true in the future. However, we acknowledge how the specific findings of our study is limited to the context of the startups we have studied. Context changes over time, and arguably events such as the pandemic have had an impact on many of the respondent's business context, which in turn could impact their experiences within the incubator. Economic variables such as economic fluctuations also limit the dependability of the paper.

Confirmability, which refers to *internal reliability*, in terms of to what degree the investor's subjective values and interpretations has influenced the data. This is often a weakness of qualitative research as the data collected are words and experiences of other humans which

are interpreted and categorized, unlike quantitative research where a higher level of reliability can be attained (Bryman & Bell, 2018). As an example, structured interviews could be applied to increase internal reliability, however semi-structured interviews are better suited to answer the thesis, causing a trade off in reliability. To begin with, the interview guide was by large open questions, in order to not lead the respondent's answers. Further, by both assigning one person to take notes during the interview and recording the interviews, we could carefully study the interview after the interview was conducted. Transcript was first done independently and then assessed together in several meetings in order to assure that the notes and interpretations were true to the narrative of the interviewee, as well as to make sure there was consensus amongst the authors about the interpretations of the answers.

3.6 Ethical considerations

According to Bryman and Bell (2018), there are four main factors necessary to consider in order to pursue research in an ethical manner. These four areas include the following: (i) is there harm to the participant? (ii) Is there a lack of informed consent? (iii) Is there an invasion of privacy? (iv) Is deception involved? (Bryman and Bell, 2018).

(i) Due to the anonymity of the participants and due to the long list of potential interviewees from the possible sampling, the statements from the participants could not be connected to an individual or venture. Thereby the participants may not risk any harm from participation.

(ii) The terms and purpose of the interview was clearly described first via email and once again before the interview began. However, the purpose, i.e. our focus on credibility, was intentionally not presented as we did not want to affect the interviewee's responses. The interviewees agreed verbally to have the conversation recorded and to have the answers used in the research paper anonymously.

(iii) All interviewees were aware of the purpose of the interviewee and that their responses to the questions at hand were going to be included in the report if they were of importance to the purpose of the study. The recordings were not shown to anyone outside of the thesis group and will be deleted once the thesis has been graded. During the interviews all three individuals in the thesis group that had access to the information were introduced to the interviewee and no one outside of the thesis group has any information about who said what.

(iv) The researcher thoroughly sought after so that the responses of the participants were correctly interpreted. Quotes were directly copied from the recordings word by word. As mentioned in confirmability, transcripts were pursued first independently and then jointly in order to prevent subjective interpretation of the statements, as well as mistakes regarding direct quotation.

4. Empirical findings

The empirical findings present the relevant results that are extracted from the interviews in addition with further information about Sting and its program Sting Incubate. The most prominent benefits were divided into the following four groups: Office space and community, networking, coaching and learning, as well as credibility. These groups are not considered absolute, but rather a simplification. In reality the findings show that these benefits are all intertwined and affect the impact and value of each other.

4.1 Sting

Sting is both an incubator and an accelerator that has been active since 2002 with a goal to support the most promising tech startups in Sweden from a broad variety of industries and increase their chances of success. Sting is a non-profit organisation that is owned by a public-private foundation called Electrum Foundation (Sting, n.d.). According to Sting this leads to them being “an independent, founder-centric player who always acts based on what’s best for your startup” (Sting, n.d.). They are mainly funded by their partners Vinnova, KTH, Stockholm county council and the Stockholm Region. In addition they receive different sorts of capital and resources from private partners and from its own operations. Sting was founded in Kista Science Park, which indicates a connection to this cluster that includes companies such as Ericsson and IBM. Today it is located at Östermalm in Stockholm and is directly connected to the facilities and university of their partner KTH. In addition their board consists of representatives from the business sector with IBM and Ericsson, from academia with KTH Royal Institute of Technology and Stockholm University as well as from the public sector with the City of Stockholm, Stockholm County Council, which fulfills all three aspects of the Helix model; industry, government and academia (Sting, n.d.). Sting offers five different programs: Sting Accelerate, Sting Incubate, Sting Incubate Deeptech, Sting Accelerate Climate Action and Test Drive (Sting, n.d.). Test Drive is the first step into Sting where you simply need an idea to develop. Sting Incubate requires a prototype and ambition to launch the product in the near future. Sting Accelerate requires some proof of traction and that an MVP has been launched. In addition there are two extra programs with a niche towards deeptech and climate action that require the company to work within those areas to enter.

4.1.1 Sting Incubate

As previously mentioned Sting Incubate has been chosen for the case study. Sting Incubate supports startups that are in the process of launching their product and Sting aims to support them in this endeavour, making sure that the launch will be successful. The first incubate program started in 2003, one year after the organization was founded. Today 12-15 startups enroll in the program every year and all these companies go through Sting's selection process. At this stage the startups are evaluated by several different coaches within Sting to decide whether the startup is worth investing resources into or not. The length of the incubation varies between 6-12 months, which suits startups with longer development cycles. Entering the program costs the startups between 3-6% of their company in options (Sting, n.d.).

The tangible benefits of Sting Incubate are office space, discounts for some of their partners such as PwC, Swedbank and Amazon, as well as other perks (Sting, n.d.). The office is a coworking space in the center of Stockholm that incubatees of the program can take advantage of for 6 months surrounded by other entrepreneurs within Sting's different programs. The intangible benefits of Sting Incubate according to Sting are mainly coaching, as well as access to investor- and entrepreneurial networks (Sting, n.d.). The incubatees will be dedicated to one coach, who are for the most part experienced entrepreneurs within their set fields and whereas some are business angels taking part of Sting out of personal passion for entrepreneurship (Sting.n.d. & Beta, interview 30 April 2021). These coaches are available several hours per week for overall business development and two coaches specifically for recruitment and team development. They will also have access to several other coaches from Sting to support with financing, marketing, PR and communications. In addition to the internal coaching there are several experts and mentors available through partnerships. For example all incubatees are granted 2 hours of advice from Delphi Law Firm, PwC, Swedbank, Gullers Grupp and Brann (Sting, n.d.). Sting also states that joining Sting Incubate gives the incubatees access to a developed investor network, which for instance means that Sting books pitch-meetings for the startups directly with business angels and venture capital firms. They also mention that Sting grants them access to a large network of business contacts in and outside of Sweden. Although credibility is not one of the main benefits communicated for the Sting Incubate program, it is mentioned on their website that "Being part of Sting and getting that seal of approval will make your journey a lot smoother." (Sting, n.d.).

4.2 Interviewed startups

All startups had their operations established in the Stockholm area during the incubation. All interviewees were active founders of a startup that currently or previously took part of the incubation program at Sting. All of the incubatees were active in different industries and therefore had different problems to solve, but what they all had in common was the ambition to solve their respective problems through a technological solution. In order to protect the anonymity of the interviewees, the proper company and personal names will not be exposed. In order to gain a perception of the incubatees some information about them will be portrayed, aside from Gamma due to explicit requests to remain completely anonymous.

Table 4.1 Overview of companies

Company	No. Employees	Revenue (SEK)	Year of incubation
Alpha	1-5	0 - 100K	2020
Beta	1-5	0 - 100K	2019
Gamma	N/A	N/A	N/A
Delta	11-15	1 - 4.5M	2019
Epsilon	6-10	1 - 4.5M	2019
Zeta	1-5	1 - 4.5M	2017

4.3 Office space and community benefits

Table 4.2 Overview of office space and community benefits

Office space and community benefits						
Company:	Alpha	Beta	Gamma	Delta	Epsilon	Zeta
Office space	+	N/A	+	+/-	+	N/A
Peer-to-peer networking ^{*4.5}	+	+	+/-	+/-	+	N/A
Spillover ^{*4.4}	+	+	N/A	+	+	+/-
- negative experience + positive experience +/- mixed experience N/A no mention * Also mentioned in ch ^x						

Firstly, office space and community was one of the most prominent benefits of Sting Incubate according to the interviews. After compiling the interviews, half of the interviewees expressed that gaining access to an office space and/or the feeling of a community in a coworking space was one of the reasons for why they joined Sting.

Epsilon was most enthusiastic about office space where they had previously worked separately in different parts of Europe during their studies, and that joining Sting and having a physical place to gather really set the basis for them pursuing their business full time. Epsilon was also very positive to the sense of community, peer-to-peer networking and spillover effect that the coworking space facilitated, noting:

“It was very important for us to have a place to gather, the environment was very fun with a batch of very cool and fun firms and people to get to know and share knowledge and partake in events” (interview, 6 May 2021).

Epsilon was positive about the coworking space, noting that office space had multiple use cases for them, both as a physical workplace and also as a valuable resource when they held job interviews. Epsilon noted how they showed the candidate around the office, the patio, the terrace and other cool areas which they hoped would make the candidate more enthusiastic to work there as well as infusing professionalism and credibility to their startup. Alpha had a similar experience as Epsilon, where they mentioned the office space as a benefit to them in several aspects, both in peer-to-peer networking and spillover effect but also as a motivational driver:

“We had a coworking space, which was closed due to covid, but when we were there it was really nice since everyone is sitting there and you can see how everyone is working. Someone bursts out in happiness [and screams] ‘I closed a deal’, which makes you also want to close a deal. It's like fuel to the fire constantly, because you also wanna get there. Then you break it down: ‘how did you do it? Which selling technique did you use?’ and then you can learn from others’ behaviour” (interview, 30 April 2021).

Gamma's experience was quite different from the others, as they explained how their expectations in the coworking space and the sense of community was one of the stronger unique selling points (USP) of Sting. However, their expectations were not met in reality.

They expressed that while the office was usually packed with entrepreneurs, the coaches and administrative staff were rarely seen in the office and they did not feel a strong sense of community within the program. This left them with the feeling of being kids in school, being left alone without teachers to provide guidance and structure. Gamma further noted how they had negative experiences with the coaching activities, where they believed they were poorly structured and executed, leaving them disappointed.

Beta also had a very positive experience of the office space, where they named it one of the two main benefits of their incubation. They expressed how they experienced working alongside other entrepreneurs, very motivating and comforting as they shared a lot of similar challenges and could learn from each other as to how to tackle and overcome them.

Zeta and Delta did not mention office space as a benefit, due to them being focused on other benefits, Zeta interestingly said that:

“First-time startups might value office space, socializing with other entrepreneurs and coaching, however that was not the case for us” (interview, 7 May 2021).

They implied how such benefits could have a positive effect for novice entrepreneurs but how they were indifferent because they regarded themselves as more mature going into the incubator.

4.4 Coaching and learning benefits

Table 4.3 Overview of coaching and learning benefits

Coaching and learning benefits						
Company:	Alpha	Beta	Gamma	Delta	Epsilon	Zeta
Sting coaches	+/-	+	-	N/A	+	+
External experts	N/A	-	N/A	N/A	N/A	N/A
Spillover ^{*4.3}	+	+	N/A	+	+	+/-
- negative experience + positive experience +/- mixed experience N/A no mention * Also mentioned in ch ^x						

Secondly, coaching and learning is one of the most displayed benefits in Sting's external communication. The learning took place both in relation to Sting's offered social capital and between incubatees.

Beta, Epsilon, and Zeta mentioned that they had great coaches from Sting during the program, but they all had different perspectives on the value of the coaching due to them having different levels of experience and different needs in general. Epsilon, which went into the incubator straight from university, argued that since none of them started any companies before, it was very valuable for them to get experienced help. They were for instance taught how to raise financial capital and hire qualified labor from their coaches. They had previously gone through a couple other incubators along the way and found it to be very useful. Zeta, which was run by more mature entrepreneurs, did not identify the experience from the coaches to be as crucial. Instead they mentioned that it was good to bring in other perspectives into the venture, so as not to get homeblind. Beta stated that they were sceptical about joining Sting at first since they were experienced already, but at the end they were very satisfied with the coaching, as their coach was so invested, motivated and genuinely interested in helping out and seeing the company grow, both through the coach's personal experience but also from their own personal network. Beta mentioned that their coach was still a valuable part of the venture to date, despite the incubation having ended. When asked about the biggest benefit of the incubation Beta said that:

"The biggest benefit was my coach that I had, thanks to him being so experienced and good. We still see each other. He is so genuinely interested and I can call him anytime" (interview, 30 April 2021).

Beta also mentioned that there was a great coach with knowledge in gamification specifically, which helped them gain a new perspective of their service and brought in expertise they did not even know that they could benefit from. Delta did not comment on the coaches specifically. Although they said that since there are different perks that you as an incumbent get to take advantage of during incubation it could create the sensation that there is a bigger team working together to make the startup successful. They believed one factor to this is that Sting has an interest in having it's startups be successful since they are stakeholders. During the interview Delta specifically said:

“Being in Sting is like having more employees in the company while you're in it” (interview, 5 May 2021).

On the other hand, Beta said that the available external experts and consults, e.g. PwC were not as good. They said it felt as if they had a different agenda, one to market their own operations rather than to support the venture in question. None of the incubatees discussed the external experts and their activities specifically as something high in value.

Alpha did not extensively discuss the value of the coaching specifically, but mentioned that they gained experience from the incubation and as previously mentioned they have argued that the spillover effect between the incubatees was strong. They also said that the dedicated coach helped them to navigate within the Sting ecosystem, helping them pick out what workshops to attend and what event to join in order for them to develop the skills necessary for them specifically. When discussing workshops Alpha mentioned that the coach said:

“[Steven], I think you should attend this [workshop] and you should join this [event]” (interview, 30 April 2021).

4.5 Networking benefits

Table 4.4 Overview of networking benefits

Networking benefits						
Company:	Alpha	Beta	Gamma	Delta	Epsilon	Zeta
Peer-to-peer networking ^{*4.3}	+	+	+/-	+/-	+	N/A
Access to RIS	N/A	N/A	N/A	+	N/A	N/A
Access to BAs (Investors ^{*4.6})	+/-	+	-	+	+	+
Access to VCs (Investors ^{*4.6})	+/-	+	+	+	N/A	+
- negative experience + positive experience +/- mixed experience N/A no mention * Also mentioned in ch ^x						

Thirdly, networking was mentioned as crucial for the startups within the incubation. An overall theme throughout all six interviews was the notion that despite all startups being dependent on other actors, different types of relationships were necessary based on the nature of the startup. Alpha mentioned:

“The key question is always: what does the firm need?” (interview, 30 April 2021).

Most interviewees mentioned the peer-to-peer networking between incubatees to be very valuable, which has been discussed in more detail in section 4.3.1. For Alpha and Delta the actors that they were most in need of connecting with were customers. Alpha did not specifically mention that Sting mediated any connection to their customers, but that they indirectly supported the sales process through coaching, events and spillover effect of the coworking space as previously mentioned. Delta, which had customers within the regional space, said that the collaboration with Sting helped them to further integrate themselves into the regional innovation system (RIS) of Stockholm. In the case of Delta they also mentioned how Sting was the main driver for their collaboration due to the value for Sting to have a showcase such as Delta in their equity portfolio. When asked what the biggest benefit of joining Sting was, Delta said:

“The network in combination with the legitimacy. We carried out a deal that has never been done before, where Sting played a crucial role [concerning] access to different contacts and key people, since they were so closely connected to the region” (interview, 5 May 2021).

Beta, Gamma, Epsilon and Zeta came into the incubation inclined to meet investors. Both Beta and Epsilon received funds from the government state funding agency Vinnova. For Epsilon, Sting helped them to successfully raise their first investment round based on angel investments. According to Epsilon, Sting had a large network of business angels, but also actors from venture capital firms. During the interview they said:

“Sting helped us with our first investment, both by teaching us how it would go, but also by connecting us directly to investors and relevant networking events” (interview, 6 May 2021).

Zeta also tried to raise financial capital during the incubation, but without success. Although it was the main reason for joining Sting and it did not result in any deals Zeta did not blame Sting for this. They mentioned that they were connected to a lot of business angels and connections to venture capital firms, but that they were still not able to utilize these opportunities. Gamma stated that they were connected to a lot of venture capital firms, but not that many angel investors. They stated that the venture capital firms did not find them to

be ready for them, which indicated that they would have been better off putting that time and energy into connecting with business angels. In addition Gamma had a very specific problem that required legal assistance. They asked Sting to help mediate such a connection, but were not satisfied with the result.

4.6 Credibility benefits

Table 4.5 Overview of credibility benefits

Credibility benefits						
Company:	Alpha	Beta	Gamma	Delta	Epsilon	Zeta
Co-branding	N/A	+	N/A	+	N/A	+
Seal of approval	+	+	+/-	+	+	+
Investors ^{*4.5}	+	+	+/-	+	+	+
Employees	+	+/-	+	-	+/-	+/-
Customers	+	N/A	N/A	-	+/-	+
- negative experience + positive experience +/- mixed experience N/A no mention * Also mentioned in ch ^x						

Lastly, in addition to the traditional benefits of incubation which are dominant in current academia, credibility was described as one of the most noticeable benefits in this study. Due to the scope of the thesis, the questions regarding credibility were mainly asked in relation to investors and employees, but other actors such as entrepreneurs and customers have also been mentioned.

Interviewee Beta, expressed that joining Sting was in fact a seal of approval for their startup that increased their credibility when in contact with external potential investors. For example since becoming a part of Sting Incubate they have had investors reach out and contact them, which has in turn simplified their process of funding. Also the startup has used the name Sting when pitching to investors in order for them to prove credibility to the investors. The respondent at one point said:

“Sting is a seal of approval, among other things” (interview, 30 April 2021).

While interviewee Beta did see their credibility increase from joining Sting, they did mention that the seal of approval was specific to certain environments. They experienced that it mainly mattered towards investors and companies within the RIS of Stockholm that were aware of Sting and its track record. In these cases it helped the incubatee to signal credibility. Although they mentioned that the seal of approval did not help them to signal credibility towards organizations, partners and customers who aren't aware of Sting. Both Alpha, Epsilon and Delta had the same experience when it comes to the seal of approval. Alpha had customers who were not based in Stockholm and didn't know of Sting, so when pitching to them they would either not mention Sting or explain what Sting is and what the incubation meant for the startup. This could, according to them, help signal credibility towards potential customers and other actors. Alpha said that it is vital to build relationships and gain other seals of approval from other organizations so that they can adapt their approach when signalling credibility depending on the actor. They said that while a seal of approval from Sting can be valuable in the eyes of potential investors, a company working with for example sustainability might need a seal of approval in the form of partnerships with established organizations in that space. This was very much the case for multiple interviewees. Gamma expressed a different sentiment than the other interviewees in the sample, in the sense that they believed that investors mainly look at a company's financial performance and merits. Being a part of Sting Incubator could just be seen as a cherry on top. They meant that if a startup has good metrics to back up the seal of approval that Sting brings then external partners (such as investors) will actually become interested.

According to interviewee Zeta there has been positive credibility benefits from joining Sting Incubate. Zeta is the company from the sample with the most time since incubation, having joined the incubator in 2017, and have kept using and mentioning their Sting seal of approval even after incubation for co-branding purposes when recruiting consultants. Their rationale for this is summed up in this quote:

“Companies show customers' logos on their website, it has mainly a subconscious effect that you are associated in some way with other companies, it is probably a bit the same with Sting” (interview, 7 May 2021).

Gamma also shared the fact that working in an office, as opposed to working from coffee shops or a garage, increased the credibility of the startup during recruitment because potential applicants could visit the premises and the meetings could be held in proper meeting rooms provided by Sting for free. That would increase the likelihood to hire qualified employees. When Alpha was incubated at Sting they received help from them with the process. This resulted in just under 200 applications being submitted. This sentiment was shared with other interviewees as well.

Beta and Epsilon were not as convinced that it helped so much in their recruiting process since their potential applicants were not aware of Sting and what it does. While the potential applicants didn't know about Sting during the application process and the seal of approval wasn't applicable at that point in the funnel, once they visited and saw the offices and learned about Sting they appreciated the perks of being an incubated company. Epsilon said that the employees expressed that they thought it was a nice place and that the coffee tasted good after joining their startup and learning about Sting.

To conclude, during the interview with each interviewee a question was asked about whether they agreed with a statement or not. The statement was *"To what extent would you agree that credibility towards external actors is a benefit of joining an incubator"*. The possible choices were *"Strongly agree"*, *"Agree"*, *"Neither"*, *"Disagree"*, *"Strongly disagree"*. When asked, four out of six interviewees said that they "strongly agreed", and the other two both said that they "agree".

5. Analysis

This chapter aims to, based on the literature review, make a correct analysis of the collected data from the interviews. The analysis is based on an analytical framework presented below and draws upon other relevant theoretical aspects in order to gain insights that are valuable for answering the thesis.

5.1 Incubation as a solution for liability of newness

Taking inspiration from the theories on liabilities of newness, the collection of theory presented in the literature review, as well as the empirical findings, a framework has been developed categorized the four main entrepreneurial challenges of startups: (1) lack of social networks and social capital, (2) lack of entrepreneurial experience and managerial skill, (3) lack of business networks and (4) lack of trustworthiness and external legitimacy. These four liabilities were then matched with the observed incubation benefits from the interviews. This is illustrated in the following analytical framework:

Table 5.1 Analytical framework

	Entrepreneurial challenges	Incubation solution
Liability of newness	Lack of social networks and social capital (1)	Office space and community
	Lack of entrepreneurial experience and managerial skill (2)	Coaching and learning
	Lack of business networks (3)	Networking
	Lack of trustworthiness and legitimacy (4)	Credibility

Based on the empirical findings from the conducted interviews, incubation benefits can act as parts of the solutions to the four biggest entrepreneurial challenges presented in the framework. The four groups of incubation benefits recognized in the empirical findings of this paper correlates quite well with the summary done by Bergek and Norrman (2008), despite the fact that the results in this research shows credibility to be accounted for as well. Lack of social networks and social capital can partly be solved through coworking space, peer-to-peer networking and spillover effect within an incubator. Entrepreneurial experience and managerial skill can be boosted by coaching from internal coaches and external experts through partnerships, as well as spillover effects from other incubatees. Business networks can be developed by the previously mentioned peer-to-peer networking and gaining access to RIS, BA:s and VC:s through mediation of the incubator. In addition the trustworthiness and legitimacy can be increased through co-branding with the incubator and its connected actors, gaining the incubators seal of approval and overall getting support in signalling credibility towards investors, employees and customers.

The table is presented early on in order to give the reader an overall perspective on the situation and the solutions at hand. Meanwhile, the four different entrepreneurial challenges that were recognized will be further discussed with a more detailed description of the benefits and their respective impact on the incubatees.

5.2 Lack of social network and social capital

Epsilon clearly described that they experienced a void of community before Sting and that it impeded their ability to truly take-off in their business. This sentiment was shared by several other interviewees, but not described as plainly as with Epsilon. In tandem a correlation between strong social ties and organizational success has been shown from an increasing number of sources (Dacin, Dacin & Matear, 2010). Overall, while some interviewees indicated that indirect benefits such as spillover effects and social networking occurred, they did not mention them in the context of main benefits. However, some of the interviewees did mention (co)-office space as a main reason for them joining the incubator, entailing that from the sampling, coworking space acted as one of the key benefits of incubation.

Dee et al. (2012) argue for how the community within incubators can facilitate an environment that fosters innovation, collaboration and networking. Common features

between the three of the four startups that mentioned coworking space, community, and spillover effects were that they (Steven from Alpha, Clint from Gamma & Bruce from Epsilon) were the younger half of the interviewees, while Natasha from Beta were amongst the older. Moreover, the other two interviewees that did not mention those features were both on the older half (Tony from Delta & Nick from Zeta). While mainly the novice entrepreneurs found benefits such as office space, community and spillover effects to be of great value, the more mature entrepreneurs in this study, did not find the coworking space to be very relevant. Among the older half of the entrepreneurs, Delta & Zeta both had a strong focus on investors and networking as being the sole reason for them joining. Meanwhile Epsilon and Gamma mentioned how coworking space, as well as the community and the sharing of knowledge that such an environment created, was a major reason for why they joined the incubator. This could indicate that the lack of entrepreneurial experience seen in Alpha, Gamma and Epsilon, increased their demand for other like-minded people in similar situations as them, whom they could learn from and start building their own entrepreneurial network. While the notion that only younger entrepreneurs reap these benefits, this does not necessarily have to be true, since one of the older entrepreneurs at Beta also experienced community benefits, however tendencies that young entrepreneurs are more inclined to need those benefits still holds true. These experiences follow Dee's et al (2012) and Qui et.al (2017) results on how coworking space facilitates peer-to-peer networking and spillover effects. This idea of incubators fostering collaboration and networking is also expressed in the literature by Samaemofrad, van den Herik and Verburg (2016) where Dee et al (2012) further argued that entrepreneurs in the same industry could claim additional benefits from this. While the startups in Sting were not all in the same industry, per se, they were all tech-startups where most of the interviewees came from their respective industry and sought to fill a gap in their market through a technical solution. In that sense, many of them were both novice in the technological part of their business but also novice in terms of being entrepreneurs – achieving Dee's et al. (2012) additional spillover knowledge in those aspects.

Furthermore, another interesting aspect of coworking space was that, Dee et al (2012) argues how coworking space can provide bootstrapping benefits such as meeting rooms, which Gamma acknowledged had helped them in their recruitment of interns, due to many of them wanting to work in the Sting environment. Epsilon also explained how the office space allowed them to have more professional job interviews, as they could utilize the meeting rooms at Sting and show-off the office spaces and utilities in order to impress the candidates.

In doing this, they induced credibility for their startup by using Sting's office space to create an image of legitimacy and professionalism.

5.3 Lack of entrepreneurial experience and managerial skill

Some of the incubatees discussed how they were lacking entrepreneurial experience and managerial skills before Sting, while others saw themselves as quite experienced going into the incubation. According to previous literature, lack of entrepreneurial experience is considered one of the greatest obstacles for novice entrepreneurs trying to survive and succeed in their business (Stinchcombe, 1965; Blank, 2013; Bruunel et al., 2012).

As previously mentioned Sting offers coaching, workshops and other activities supported by internal coaches, as well as external experts and partners. These activities are meant to accelerate the learnings of the team (Samaeemofrad, van den Herik & Verburg, 2016), which for example Epsilon and Beta mentioned truly was the case. The coaching was positively received by five out of the six interviewees. For example, Beta said that their dedicated coach was the biggest benefit of the incubation, despite going into the incubation with extensive industry experience. They did not anticipate this to be as valuable as it was. They also came in contact with a gamification coach that offered very niched expertise which proved very valuable to them. Perhaps this indicates that due to the liability of newness it is difficult for startups with just a handful of people or so involved to possess all capabilities required to perform all tasks proficiently. It may also show how incubators adapt their value proposition based on the needs of its incubatees as described by Dee et al (2012). Alpha stated that the coaches gave specific advice for all entrepreneurs in the team. For example, they recommended different workshops to different people. This shows that the coaching aims at filling the knowledge gaps in the organization. It shows that they do not just help the entrepreneurs to develop as entrepreneurs in general, but also in managerial aspects by supporting individuals in their specific roles in their startups. It also shows that they do not only provide access to social capital, but also helps the startups to utilize the available resources efficiently. This was described by Bandera and Thomas (2017) as the most crucial task of an incubator, since access to capital is not nearly as strongly correlated to survival as utilization of social capital.

The more experienced entrepreneurs, such as Zeta did not put as much emphasis on the coaching, but mentioned that it was good with a different perspective not to become blind to flaws. The younger entrepreneur in Epsilon that went into the incubator directly from university, as well as Steven from Alpha that had experience in the field but not as an entrepreneur mentioned that the coaching made up for their lack of internal experience. With this being stated the younger entrepreneurs may make use of the coaching to build a fundamental entrepreneurial knowledge, while the older generation might need it to reinvent, update and complement their entrepreneurial knowledge.

Beta mentioned that the external experts were not as good. They believed this to be caused by the influence of the partners own agendas, which were mainly to market their own operations. On the contrary, Sting and its internal coaches have a different motivation. Sting as an organization is vested through their equity in the startups, while the coaches are both employed by Sting, are also specialized in entrepreneurship and might have a matching personal passion that could be lacking from the partner representatives. This enables the Sting coaches to completely focus on the survival and success of the startup long term as if they were directly hired by the startup.

Furthermore, as the coaches at Sting are for the most part experienced entrepreneurs and senior members in the entrepreneurial context (Sting, n.d), they provide value to the incubatees as they have connections to their own sets of networks. While this makes the benefit of coaching contain a randomness in terms of which coach you are assigned, and how embedded they are into the startup's business context, it also creates opportunity for greater individualization. Also, given that the feedback on coaching was positive amongst the startups, there is reason to believe that Sting has a well thought-out process in how they assign coaches to fit the needs of each startup. Coaching could be experienced very differently across different incubators, and since Beta mentioned how they had been advised to join from a friend who had good experience of the coaching, it could perhaps stand as one of the factors determining the attractiveness and reputation of the incubator.

5.4 Lack of business network

Several of the incubatees mentioned that they lacked certain important business networks. Fagerberg (2006 cited in ed. Edquist, 2006) points out that these relationships are crucial since innovation rarely occurs in isolated organizations.

In addition to access to internal social capital all incubatees were offered opportunities to pitch their business to investors through mediation of Sting. According to Dee et al (2012) using an incubator as a mediator in this way can be very effective for startups that are lacking credibility. In addition Sting recommended the incubatees to join certain investor and networking events that were not at all connected to Sting. Complementing this access to the investors, Epsilon mentioned how Sting also assisted the startups in how to pitch properly and how the whole procedure of fundraising would pan out. Going back to the research of Bandera and Thomas (2017) this enables the startups not only to gain access to social capital, but enables them to utilize it as well, which in this case means “sealing a deal” with investors. However, even though Zeta admitted to how they joined Sting in hopes of investment and ended up not getting that, they were still content and happy with Sting’s service as they admitted how the unfortunate outcome might rest on their shoulders for not taking advantage of all possibilities and resources available to them.

Furthermore, Sting is thanks to its foundational integration of the Triple Helix model excellently equipped to reap the benefits of being part of Stockholm’s RIS as well as being part of the SIS of tech-startups in Stockholm. The literature on the Triple Helix model in regional and sectoral innovation systems claims they provide benefits such as innovation diffusion, as well as knowledge and technology spillover through establishing relationships with local firms, universities and public institutes (Cantù, 2010). In the findings however, almost none of the interviewees specifically mentioned such benefits apart from the various activities and networking connections that Sting provided. Instead, the companies were more focused on hands-on benefits such as external credibility, coaching and office space etc. This was true for all but one, Delta, where Sting’s uniqueness with having the Triple Helix model was instrumental in their decision to join Sting. Equally unique was Delta’s area of business however, which directly involved immense collaboration and innovation diffusion between their industry, government and institutions. While none of the other incubatees mentioned how Sting’s collaboration with academia, industry and government affected their business,

the fact that Delta knew of this uniqueness and was able to exploit that, led to them from having one of the most reluctant approaches towards joining Sting, into having perhaps one of the best reviews in retrospect. This, shows what Breivik-Meyer, Arntzen-Nordqvist and Alsos (2020) proposes concerning how utilization and exploitation of incubation benefits is contributory to the success of incubation, exposing the difference between access to social capital and utilization of social capital by the individual startup (Bandera & Thomas, 2017). Although Delta could be considered an outlier, having a very unique business situation and going above the average in terms of utilizing the RIS connection at Sting, this does not mean that the other startups did not utilize Sting's RIS connections. For example, Beta and Epsilon mentioned how they had acquired grants from government state funding agencies such as Vinnova.

5.5 Lack of trustworthiness and legitimacy

According to Singh, Tucker and House (1986) external legitimacy is an overarching challenge for all startups. The concrete challenges that the startups were most eager to solve were raising financial capital, hiring qualified labor, increasing sales and starting different business collaborations. At the same time the literature states that a lack of trustworthiness and legitimacy can impede a startup's ability to perform these tasks (Aldrich and Auster, 1986; Landstrom, 2017; Bhidé, 2000). When analyzing credibility, it was identified that credibility manifested differently in different contexts and that it was experienced differently across different external actors. Furthermore, credibility was used as a co-branding tool as well as there were tendencies for a sort of incubation embeddedness which will all be explored below.

5.5.1 Credibility in different contexts

Credibility is a multifaceted concept and it's important to make distinction on which external actor the credibility is targeted, and what the company is in need of when analyzing how startups experience it (Dee et al, 2012). There was a noticeable distinction in how the younger and older entrepreneurs experienced and approached external actors, where the younger expressed to a larger extent how they were in greater need of qualified labor and customers, and the older had a stronger focus on investors. Finchman and Levinthal (1991) with their theory on liabilities of adolescence, would argue that these companies are still in their honeymoon phase. Due to these younger incubatees still having initial assets in their

companies, they are not in an immediate danger of failure, whereas incubatees that are more focused on financial investment have exited this honeymoon phase. While no explicit data has been collected on the startups' initial assets and balance sheets over time, the older entrepreneurs did have more mature companies in terms of age, indicating that they would have exited Finchman and Levinthal's (1991) "honeymoon-phase". Nunes, Felix and Pires (2014) also argue how the experience of the startup team is what weighs the heaviest for investors when seeking capital, which makes it all the more reasonable for senior entrepreneurs to have a greater focus on investment as they are more likely to acquire it with additional support of the incubator, while younger entrepreneurs are in greater need to gain that experience.

Interestingly, the assumption previous to the collection of empirical data was that novice ventures were in greatest need of capital and external credibility, as the liability of newness theory had heavy focus on collaboration with key industry actors and investors. However, in the empirical findings interviewees were observed to be very adamant about how they during the novice and adolescent years of their ventures were in greater need of customers and qualified labor rather than investors. In this, most argued that the credibility benefit of Sting did not extend directly to customers and employees outside of the entrepreneurial community as most had never heard of Sting, leaving the startups with the same lack of credibility that incubation was supposed to solve. This result shows that the credibility that Sting provided could mainly be asserted onto external actors that knew what Sting ment. On the other hand, the fact that two interviewees (Alpha & Zeta) presented themselves as Sting startups to customers in order to build credibility by explaining what Sting is, showed that the incubation could still hold credibility benefits towards customers if explained. This further feeds into Bandera & Thomas (2017) claim on how social skills can enhance the utilization of incubation benefits.

5.5.2 Signalling credibility towards external actors

Furthermore, there was also mixed perceptions on how their association with Sting affected credibility towards employees, where most entrepreneurs explained how the vast majority of job aspirants did not know of Sting. They remarked how Sting was to the largest extent only known within the context of other entrepreneurs, investors and industry giants within Sting's network. However, similar to customers, once the potential employees found out about Sting and what benefits they offer (such as office space in a central area of Stockholm, networking,

events, coaching and more) the credibility of the startup did also increase for the potential employees. Therefore if exploited, Sting could be used to increase credibility towards employees with no former knowledge of what Sting is and potentially have a higher chance of hiring qualified labour that otherwise would not want to take the risk in a startup where the chance and risk of failure is higher. The literature states that novice firms gaining institutional support drastically increases their chances of survival (Singh, Tucker & House, 1986), which has also been identified in this study. And while the employees were positively affected by the fact that the startup was part of Sting, it was not often one of the key reasons the potential employee applied for a job or an internship. Alpha created and distributed an ad for a job at their startup through Sting and received just under 200 applications. This shows that unless the ad for the job or internship was made and distributed by Sting, the potential employees most often found the companies through different channels or directly through learning about the specific startup on their own. And according to Gamma a lot of the applications that knew of Sting ahead of the interview were in some way incorporated into the entrepreneurial ecosystem. Either through previous work experience, contacts or having started their own startup at an earlier stage.

Instead, the credibility that incubation provides is very heavily focused on VC firms, BAs and networking with other entrepreneurs which, according to the liability of adolescence, occurs after the “honeymoon” phase is over, where the theory basically becomes liability of newness. Delta said that being a part of Sting made it easier to book meetings with VC firms and BAs since they already knew of Sting and it’s previous track record. In a sense Sting does some of the first basic work of screening the startup for potential. When Sting then accepts the startup it means that Sting has had enough confidence in the startup to invest. Additionally, some of the startups had received RIS-benefits of early-stage grants by the government agency Vinnova, where a study by Bapna (2019) showed that this could simplify the startup to raise further capital since VC:s and BA:s more frequently invest in ventures that have been invested in before. This sends a signal that this company at the very least has some potential. In line with (Landström, 2017) who discussed that signalling is especially important during the initial stages when it lacks the track record and therefore needs to convince the potential investors. Without Sting the VCs and BAs would need to start from scratch and investigate each startup thoroughly. Delta continues with calling the easier access to potential investors that Sting offers like getting access to a backdoor. Gamma was adamant about the fact that while Sting might help open doors, investors still do their due diligence

and investigate both the startups team, product, market and financial statements in order to decide whether to invest or not. This means that the signalling only helps to a certain degree and that the startups still have to prove their worth to potential investors even after joining Sting.

5.5.3 Co-branding as a tool for signalling credibility

Throughout the interviews the main point has been that the incubation at Sting has in some way positively affected the incubatees credibility towards external actors. Although it is difficult to differentiate what part of this phenomena is based on an unconscious effect contributed by associating network models of memory (Keller, 1993) and what is practicality based on the knowledge that the startup has fulfilled the specific criteria for joining the incubator as portrayed by Samaeemofrad, van den Herik and Verburg (2016). Although a clear distinction is difficult it is possible to connect certain actions towards different theories. In order to dig deeper into this discussion it could be argued that a deeper insight into the minds of the external actors such as investors and job applicants would be valuable. Therefore the methodological approach to this research would not be suitable for the purpose of this distinction. This duality of causation can be compared to several types of labels such as the Swedish sustainability-labeling company Krav who claim that their products are produced in a socially, economically and environmentally sustainable way (Krav, 2020). In this case it is also difficult to know how the Krav label affects the consumers. Whether the reaction is based on extensive research of the organization's work and impact or if the consumer simply believes in the brand of Krav and *feels* as though this label has meaning. In a similar way Sting's seal of approval states that the company and its entrepreneurs at hand are capable of survival and success and for whatever reason this can have value to the incubatee in its ability to signal credibility.

Throughout the interviews there is a recurring pattern of the startups using the symbolic value of their relationship to Sting in order to build their brand identity towards certain actors. For instance Zeta and Beta have portrayed the relationship in their pitches towards investors and many of the companies have internalized the relationship into the identity of their venture, where Epsilon stated that they are "Sting-companies" and that certain external actors identify them as such. In the same way it is very clear that the co-branding at Sting goes both ways. Sting clearly communicates their association with previous incubatees such as Karma and

Sellpy in order to signal credibility and other attributes (Keller, 1993), as well as to prove the value of their service with a more practical approach.

5.5.4 Incubation embeddedness

Gamma had also experienced this, where they argued that, while they were discontent with their experience at Sting, there was not any channel to go through with this feedback, as they experienced that speaking ill about Sting was taboo and that no one did. Instead everyone at the office and the Sting-alumni they had met with, hyped the positive experience and influence of Sting, leaving little to no room to discuss the flaws of the incubation. Gamma further mentioned how Sting took part in a Nordic competition, where they were urged to vote and after winning they used this reward frequently in their value propositions. It was observed that most interviewees mentioned seal of approval when discussing the credibility provided by Sting. In the interview with Epsilon they explained how it was an expression regularly used by Sting-administration, which then latched onto its incubatees as a perceived incubation benefit. While credibility as an incubation benefit sips through in many areas, this pushed agenda by Sting with their seal of approval could also be seen as an indicator of Gamma and Epsilon's perception of a form of incubation embeddedness. Since the credibility provided by an incubator to its startups is to an extent reliant on the reputation of the incubator (Samaemofrad, van den Herik & Verburg, 2016; Sherman & Chappell, 1998), it is essential for incubators such as Sting to have their incubatees talk positively about their experience, in order for Sting to achieve external reputation. Naturally this also becomes true for its incubatees, as they want their incubation to lead to as much external credibility as possible. However, this predicament might also lead to what Gamma described as a "self-fulfilling prophecy", where group-think is developed around the greatness of incubation as all parties in Sting are to a degree reliant on people within the entrepreneurial community to have a positive impression of Sting, in order to achieve co-branding (Keller, 1993). This form of embeddedness and group-thinking could also be derived from Busch and Barkema's (2020) notion that social networks can play a critical part of entrepreneurial success, where the social pressure of fitting in, made them conform to the norm of the environment at Sting. Further as Dushnitsky & Shaver (2009) claim, this embeddedness to an enterprise, can both lead to positive outcomes of access to network but also lead to embeddedness, or where a lack of diverse information and knowledge can lead to over-embeddedness and group-thinking (Busch & Barkema, 2020).

6. Conclusion

In this final chapter, the concluding remarks and discussion of the analysis is described. Then the study's practical and theoretical contributions are presented, followed by suggestions for future research on the topic.

6.1 Concluding remarks

This thesis investigated the benefits connected to incubation with a deepend focus on credibility. The aim of the thesis was to, through a qualitative case study of six embedded incubatees, further assess the role of credibility, while also analysing its connection to the other more traditional benefits. The thesis was conducted in order to answer the research question:

What role does business incubation play for a startup's ability to overcome challenges and signal credibility?

In our research, contrary to Bergek and Norman's findings (2008), we found credibility to be an instrumental part of incubation. Even in instances where credibility was not the topic of discussion, the experiences of other benefits still resulted in an increase of credibility. For example office space could be used to portray professionalism and Sting investing in their incubated startups, made other investors more likely to invest given social proof. Our results show that while incubation houses many services and benefits, credibility was an overarching benefit that the startups sought to gain from joining the incubator. With that said, while the focus of the study was credibility as a benefit, we found that credibility can not be achieved without the other services. Similarly to how innovation does not occur in isolation, the same goes for credibility. It becomes a chain reaction, where all the benefits overlap and synergize with each other, eventually accumulating into credibility.

6.2 Discussion

The research clearly states that incubation can help startups deal with liability of newness through signalling credibility. The degree of credibility benefits through co-branding with an incubator is dependent on the reputation of the organization, as well as the success of previously incubated startups. However, our findings also show that despite the credibility benefits of incubation being less valuable if the actor is not aware of the incubator, the

incubatee can gain credibility if the concept of incubation is communicated and the incubator is positively described.

Furthermore, the research shows that credibility benefits from incubation differs a lot based on the circumstances. What type of external actor and how they position themselves in relation to the spatial context and geographical location of the incubator affects whether the incubator and its seal of approval is known to them. For instance the research portrays how investor-relationships are most affected by the credibility gained from an incubator, since they are often aware of the major organizational actors within the ecosystem. They might have been in contact with previous startups from the incubator or have heard of the incubator in other ways, which creates a bias towards all startups within the program that can be positive or negative based on the reputation of the incubator. Despite some interviewees mentioning that employees had a positive attitude towards joining an incubated firm, it did not seem to matter significantly in the incubatees ability to hire qualified labor. The matter of which actors are affected by the seal of approval from an incubator can also be based on the industry of the incubated startup and how the micro environment, such as customers and partners, is structured. For instance, Delta had customers within the regional sector that led to the seal of approval of the incubator to be of great value due to its connections to the key actors within the RIS.

Additionally, the co-branding effects from joining an incubator can help a startup to signal credibility towards external actors, however co-branding on its own is not enough to raise financial capital and hire qualified labor. This needs to be combined with credibility in other aspects as well. Some of the necessary additional activities are according to the interviewees offered within the incubation, such as coaching from financial and recruitment experts that are offered in order for the incubatee to create efficient pitches, job offerings and similar communicative tasks. Once the startup matures it further needs to provide other proofs of credibility and survivability, since the credibility gained from Sting depreciates in value over time. Similar to how a hospital incubator works, the baby, or the startup in this case needs to eventually be able to stand on its own. At the end of the day the startup needs to be able to convey that they have a viable business idea with a team capable of executing it.

Moreover, the idea of incubation embeddedness, although only two mentioned this and a third revealed tendencies of this, we argue that there might be some substance in this after

conducting this paper. While the benefit of incubation is by no means a hoax, the perceived credibility and greatness of it could be exaggerated, due to group-think and co-branding effects that was discussed earlier in chapter 5.5.1. Taking for instance Zeta, who did not achieve their goals of incubation at Sting Incubate, but still chose to praise Sting in general while at the same time noting that a form of group thinking existed where incubatees were made to believe that all startups had good experiences of incubation. Deviating from this norm and speaking negatively about the incubator, as witnessed by Gamma, was rare and they mentioned that it would rather imply that the startup was to blame. Furthermore, seeing as the external credibility provided by the incubator is strongly linked to the reputation of the incubator, it creates a reality where criticism of the incubator that the startup is engaged with, would become counterproductive for the incubatee. However, while we acknowledge that we lack empirical findings to state this claim, we still identify the possibility that incubation embeddedness might exist to a degree. If it were to be the case, it would both hamper the improvement of incubators and the much needed services for their startups.

Lastly, we also found that the level of credibility a startup can achieve also relies on their ability to utilize the benefits they are given access to during the incubation. In terms of access and utilization, an analogy can be made to universities. A university is a platform for students, where they provide learning activities in terms of lectures and seminars, and tools and services in terms of library, access to professors and networks to other universities and the industry sector. Simultaneously, universities have different reputations and at graduation, the students get a seal of approval from the university they studied at, which they use in order to signal competence towards employees. While universities can facilitate and give their students access to these resources in order to give them the best chance for success, the extent of how much each student utilizes them during their time as students is up to them.

6.3 Contributions

6.3.1 Theoretical contributions

Although acknowledging its value, this paper argues that credibility has not been properly highlighted in previous academia. The research performed for this paper has opened up a more complex viewpoint of incubation from the perspective of the incubatees. It has brought attention to specific insights that further developed the perspective of the incubatees and called upon further research in the area. The paper's contribution was its rigorous assessment

of credibility as a valuable benefit from incubation. The paper also expanded the entanglement of credibility benefits within the support system of incubators, describing its relation to the other benefits. Since credibility benefits are an indirect benefit connected to the collective activities of an incubator, research on credibility benefits also sheds further light on the value and distinction of the remaining benefits, as well as the net-value of incubation.

6.3.2 Practical contributions

By developing a more correct and perhaps complex understanding of incubation benefits for incubatees we can more properly understand the true value proposition of incubators. This enables more efficient and accurate service-market fits. Ergo incubators can more accurately communicate and sell their service to the customers they truly believe will benefit from the service. In addition startups can more accurately evaluate whether their company specifically would benefit from such a service and what that might lead to for them.

6.4 Future work

This paper further investigated the importance of credibility as an incubation benefit in relation to other incubation benefits, and what effect it has on the incubatees ability to signal credibility towards external actors. While conducting this paper however, we found a number of alternative directions and methodological approaches that would be interesting to investigate further.

One interesting approach would be to investigate how credibility is experienced across different incubators with diverse reputations and contexts. With this perspective, a comparative case study of different incubators, would allow for greater understanding concerning how credibility is experienced differently across various incubators and to what extent the legitimacy and credibility of the individual incubator determines the credibility-outcome of incubation.

Another approach would be to pursue a similar research to this paper, but from the perspective of external actors, such as investors, customers and potential employees. With their perspective on the value and credibility from incubators, data that was in this study collected indirectly from the perception of the incubated startups, could thereby be collected straight from the source. Also, it could give better understanding on how to market

themselves towards customers and employees, and engage these into the entrepreneurial community.

Lastly, we urge further research to be pursued concerning incubation embeddedness and potential group-think that may exist within incubators. This could more clearly distinguish what aspects of incubation might be subjectively valued and thereby enabling a more correct and fair assessment of incubation and its different services.

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Appendices

Appendix 1, Interview guide

Basic questions:

1. Could you tell us a little bit about yourself and your company?
 - Your role
 - Industry

2. Are you comfortable with telling us some financial statements?
 - Revenue
 - Profits
 - Valuation

4. How many employees do you have?
 - On payroll
 - Interns
 - Outsourcing

5. Do you have external investors in your company?
 - BA
 - VC
 - Other

6. What month did XXX enter “Sting Incubate”?

General benefits:

7. Why did you enter “Sting Incubate”?
 - Sting instead of other incubators

8. What were the main benefits from joining “Sting Incubate” according to you?

- Ability to raise financial capital
- Ability to hire qualified labor
- One main benefit

9. Were there benefits you didn’t have in mind going in, but found out during or after incubation?

Credibility:

10. Did you experience changes in your credibility as a startup and entrepreneur after joining Sting?

- External actors (not through mediation of Sting)
- Instantly after joining the program (Seal of approval)
- During the incubation period
- After the incubation period

11. To what extent would you agree that credibility towards external actors is a benefit of joining an incubator?

Strongly agree, agree, neither, disagree, strongly disagree

Investors:

12. How do you think the credibility and “seal of approval” gained from Sting affected your attractiveness as an investment?

- Differences between BA and VC
- Booking meeting
- Trust from investors
- Do you include Sting in your investment pitches? Why is that, you think?

13. Did you have any investors before Sting?

- How has Sting influenced these relationships

- Investment rounds before/during/after
-

Labor:

14. How do you think the credibility gained from Sting affected your attractiveness as a workplace?

- Employees
- Interns

15. Do you think there is anyone who is a part of your workforce as a result of the connection to Sting?

- Not through mediation

16. Did you have any employees before Sting?

- Employees or interns
 - Relationships affected
-

Other:

17. Is there anything you've thought about that we haven't asked about, that you'd like to share?

Transcript is available on request