Internal networks at incubators

How does it develop and affect the entrepreneur's ability to access resources

Abstract

Incubation has become a common way for entrepreneurs to increase the likelihood of their

startups succeeding. These incubators supply the entrepreneurs with a large range of service

but this research will delve deeper into what some perceive as the most important aspect of

the incubation, the internal network of the incubator.

This has been done through a case study with seven in depth semi formal interviews

conducted at a single incubator in Stockholm Sweden that is focused on its internal network.

The case was analyzed using social capital and social network theory in conjunction with the

ARA model.

The results of the study confirms that the internal network is indeed an important aspect for

the entrepreneurs as it allows them to build social capital that in turn allows them to access

the resources they need. Furthermore, the effects of the incubation on the personal social

network of the entrepreneurs has been mapped to get a deeper understanding of the exchange

and development of resources at an incubator focusing on internal networks.

Key words: Social capital, ARA, incubator, internal networks, resources

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Key words and definitions

Incubator: An entity that is "providing their tenants with a mix of services encompassing infrastructure, business support services and networking" (Bøllingtoft, Ulhøi 2005).

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The incubator: The incubator studied in this research will be referred to as *the incubator* due to anonymity.

Direct support: Incubator providing services such as office space, organizational support, knowledge exchange and mentorship (Amezcua et al. 2013).

Indirect support: Regarding indirect support the incubator is an environment with many different but important stakeholder present that provide access to social capital and legitimacy (Amezcua et al. 2013, van Rijnsoever, van Weele & Eveleens 2016a)

Social Network: A social network can be made out of friendships and/or business relations between either companies or individuals (Newman 2003).

Internal network: Connections between the incubated companies that enable them to share resources. (Bøllingtoft, Ulhøi 2005)

External network: How the entrepreneurs are connected to outside partners and clients (Bøllingtoft, Ulhøi 2005)

Social Capital: "investment in social relations with expected returns".(Lin 1999)

Vertex: "The fundamental unit of a network, also called a site (physics), a node (computer science), or an actor (sociology)" (Newman 2003).

Edges: "The line connecting two vertices. Also called a bond (physics), a link (computer science), or a tie (sociology)" (Newman 2003).

ARA: The ARA- model was proposed as a means to study interpersonal interactions in a business setting (Ford et al. 2008)

Activity links: Activity links are defined as activities performed to access resource, this could be activities such as producing, selling and buying (Hosseini, Dadfar 2012)

Resource Ties: Resource ties are defined as the ties between two parties respective resources, where both parties resources mutually adapt over time to each other (Ford et al. 2008)

Actor Bonds: Actor bonds are defined as the interpersonal links that are created through interactions between two different actors (Ford et al. 2008)

1 Introduction

Your everyday life is affected by many factors that you do no longer even think about. The way you pay for your internet purchases, the game you play on your smartphone on the subway on the way to work and the way you digest your news are all such simple but essential part of our modern lives. Many of these products and services are the result of brave individuals risking their livelihood to put them to the market, these modern entrepreneurs are on their way to becoming superstars but it is often forgotten that most actually fail (Krishna, Agrawal & Choudhary 2017). The incubation process was developed as a means to help these creators become more successful while reducing the risks involved (Bruneel et al. 2012), but whether this has yielded the desired result or not is very much up for debate (Bøllingtoft, Ulhøi 2005). The challenges these entrepreneurs face everyday ranges from finding investors to launching their product, but regardless of what phase they are in, the successful entrepreneurs possibly most essential asset may be their network. A wide network is not just something that will grow on its own, but something that must be grown and maintained constantly, this is great challenge especially for first time entrepreneurs that lack previous experience to lean back on (Liechtenstein, Lyons 1996). Looking at the Swedish startups scene, Stockholm is ranked as the 2nd best ecosystem for startups after Silicon Valley(Invest Stockholm 2017). With \$1,4bn invested in 247 different startups, Stockholm is by far the biggest recipients of investments in startups in the Nordics and Stockholm based venture capital firms raised three out of the six largest new investment funds in Europe in 2016 (Invest Stockholm 2017). In other words, Stockholm and Sweden has a flourishing startup scene where companies such as Spotify, Skype, Klarna and iZettle originated from.

2 Background

2.1 Startups

New ventures also known as startups has shown to be associated with high risks as 9 out of every 10th startup fail (Krishna, Agrawal & Choudhary 2017). The reason behind this high failure rate lies in the experience and expertise of the entrepreneurs. The ones that had more startup experience were shown to be more successful with their startups (Mitchell, Mitchell & Smith 2004). Other studies have pointed out that the founders of startups often have great knowledge of the market they are entering but they are lacking business, technical,

marketing/sales, physical resources and managerial skills (Lyons 2000). This together with difficulties of financing startups has led to failure for the startups (Allen, Rahman 1985) In an attempt to solve many of these issues and help the entrepreneurs succeed with their startups the incubation process was created (Bruneel et al. 2012).

2.2 Incubation

There is a lack of academic agreement on a definition on what a incubator is. A description of an incubator is that they are "providing their tenants with a mix of services encompassing infrastructure, business support services and networking" (Bruneel et al. 2012) Incubators has existed for a long time to help startups survive by providing them with essential resources. During the eighties and the nineties, the first and second wave of incubation took place (Bruneel et al. 2012) This meant incubators went from simple office space compounds, to organizations offering services to help the entrepreneurs succeed such as coaching and synergy effect of buying and working together. The current and third wave of incubators are much more focused around aiding the entrepreneur with networking. Furthermore, these new incubators often tend have an increased focus on the trend of tech startups (Bruneel et al. 2012). The success of these incubators is debatable as there is not even a consensus how to define them or how to measure this success (Bøllingtoft, Ulhøi 2005). Since only one in ten startups survive (Krishna, Agrawal & Choudhary 2017) this debate is very much understandable.

A social network can be made out of friendships and/or business relations between either companies or individuals (Newman 2003). The social networks created by the entrepreneurs during the incubation can be divided in two categories both external and internal networks (Lyons 2000) The external network refers to outside partners and clients while the internal networks is the connections to the other entrepreneurs at the incubator (Bøllingtoft, Ulhøi 2005). These networks are a key aspect of the incubation process regarding how entrepreneurs access resources and deserves further study.

2.3 Social Networking

The internal network of the incubator has been found to be key for the entrepreneur to access resources (Bøllingtoft, Ulhøi 2005). Some researchers even go as far as to state that the internal network is the most important service the incubator offers its entrepreneurs (Lyons 2000). Recent research on social capital emphasize on the importance of network, especially for entrepreneurs, in order to achieve successful economic development (Flora et al. 1997, Salaff, Greve 2003) Social capital is defined as "investment in social relations with expected returns" (Lin 1999, Burt 2000, James 1990). An entrepreneur that has built up social capital can then utilize that to obtain resources that are necessary for the survival of the startup (Lyons 2000, Flora et al. 1997).

2.4 Purpose and research questions

The purpose of this study is to examine how resources are exchanged and developed at an incubator that is focusing on internal networks. To get a deeper understanding and learning about this process the personal social network of the entrepreneurs will be examined. The aim is to contribute and add knowledge to prior studies on how incubator enables entrepreneurs to access resources. As a result of this the following three research question has been formed:

Research question 1:

How do incubators facilitate and aid the development of the internal networks at the incubator and the social capital of the entrepreneurs, that enables the entrepreneurs to access necessary resources?

Research question 2:

How do the entrepreneurs adapt their interactions in order to better utilize each other's resources and expertise?

Research question 3:

How does the entrepreneurs personal social network develop during the incubation process?

2.5 Delimitations

Since the case study was conducted at a single incubator with a qualitative focus the transferability of the results on other incubators may be limited. Although it is believed that this focus will give increased accuracy and insight in the results.

The incubator, this is how the chosen incubator will be referred to due to anonymity, was chosen because of initial informal discussions and interviews where this incubator was found to be an excellent fit in regards to their focus on networking in a very informal setting. Secondly this incubator was easily accessible so a convenience factor was also at play. The choice was also limited to the Stockholm area where the authors are based.

3 Theoretical framework

3.1 Types of incubators

There have been many attempts to categories incubators but as pointed out by (Bøllingtoft, Ulhøi 2005) it is not an easy tasks as many individual incubators differs substantially. Though the development of the incubator can be divided into three phases the first being during the eighties when the incubators mainly provided office space for the startups (Bruneel et al. 2012). The second phase came during the nineties and was focused on support systems and knowledge based services (Bruneel et al. 2012). Finally, the current generation is more focused around helping startups that are smaller and often tech based startups by providing access to external networks (Bruneel et al. 2012). These startups have shorter incubation periods than the older generation, increasing the turnover rate of the incubators that are focusing on finding startups and graduating them (Bruneel et al. 2012)

Other than the three generations of incubators there are other categorization attempted by many papers. Furthermore, the incubator has become an umbrella term for this phenomenon (Bøllingtoft, Ulhøi 2005). This becomes an issue as most studies contain many different incubators with different functions and definitions. Claiming that the results of these studies are accurate becomes somewhat problematic as they compare such different entities and try to generalize both their behavior and purpose. Therefore, this study will be focused around one incubator in an attempt to get clear results.

The service provided by the incubator allows for another way to categories among incubators. One such way described by (Amezcua et al. 2013, van Rijnsoever, van Weele & Eveleens 2016a) is to look at direct and indirect support. Direct support refers to the more basic and old form of activities such as office space, organizational support and mentorship (Amezcua et al.

2013). These services allow the startups to focus on their own business proposition and is believed to lead to better startup performance (van Rijnsoever, van Weele & Eveleens 2016b). Regarding indirect support, the incubator is an environment with many different but important stakeholder present that provide access to social capital and legitimacy (Amezcua et al. 2013, van Rijnsoever, van Weele & Eveleens 2016a) This environment can be divided into two categories, Internal and external networks (Lyons 2000). The networks are both important as they help the entrepreneur to gain access to business contacts (Bøllingtoft, Ulhøi 2005). The External network is focused on how the entrepreneur is connected to outside partners and clients (Bøllingtoft, Ulhøi 2005). According to (Bøllingtoft, Ulhøi 2005) the internal networks are especially efficient at building social capital as they enable the internal companies of the incubator to share resources. As (Lyons 2000) states this type of internal networking is the most important service provided by incubators. Furthermore (Lyons 2000) found that entrepreneurs mostly use their informal contacts which (Bøllingtoft, Ulhøi 2005) defined as contacts not bound by contracts. In previous studies such as (Bøllingtoft, Ulhøi 2005) both external and internal networks have been studied rather than focusing one of the aspects. This may be since it is hard to distinguish between the two, when looking at an incubator as (Bøllingtoft, Ulhøi 2005) states that personal and business networks become easily confused in this setting. Furthermore (Bøllingtoft, Ulhøi 2005) study was conducted at a large incubator of 50 companies that were not situated on the same floor and therefore had limited access to each other.

3.2 Network theory

3.2.1 Social capital theory

Social capital is most commonly defined as "investment in social relations with expected returns" (Lin 1999, Burt 2000, James 1990). Recent studies of social capital emphasize on the importance of network and how that is vital, especially for the entrepreneur, in order to achieve successful economic development (Flora et al. 1997, Salaff, Greve 2003). (Flora et al. 1997) claims that cooperation is critical for entrepreneurs to succeed and that social capital is the "entrepreneurial social infrastructure" meaning that social capital act as a platform for the entrepreneurs to exchange resources between each other. Looking at the most common obstacles which puts startups out of business are either lack of resources or knowledge (Liechtenstein, Lyons 1996). By entering a network, the entrepreneurs can use their social

capital to access new relations to help them resolve these issues faster and easier than would otherwise be possible (Lyons 2000).

There are three different explanations to why and how social capital affects the outcome of the actions that are performed by the individuals in the social network which are flow of information, influence on important stakeholders and social credentials (Lin 1999). The first one is that the access and flow of *information* increases and this is essential in imperfect market situations which provides the individual with opportunities and information that otherwise would not be accessible (Lin 1999). This enables the individual to solve the problem quickly instead of spending large amounts of time on information research or capital on recruiting individuals that has the sought after information (Nahapiet, Ghoshal 1998). For entrepreneurs starting their first startup time is limited and furthermore they lack both experience and knowledge, the flow of information is essential in order to solve these problems. The second reason is that one might leverage the accumulated social capital to exert influence on important agents/stakeholders that has the power to access the requested resource that otherwise would not be accessible (Lin 1999). When an entrepreneur needs to get a certain resource that is controlled by people outside their network, it is important to know people that can put in a good word and influence the gatekeeper of the resource (Lin 1999). The third reason, is that the social capital may work as a credibility function or as social credentials for the individual (Lin 1999). Further on in this report social credentials will be referred to as credibility. This credibility function lowers the barrier to enter new network and access more resources for the entrepreneur (Lin 1999, Tötterman, Sten 2005).

3.2.2 Social networks theory

Social network theory is a part of the social capital theory and is focusing on how relationship and interactions occurs and is formed into a set or groups of people (Newman 2003). A social network can be made out of friendships and/or business relations between either companies or individuals and is examined through looking at the patterns and interactions between these different connections (Newman 2003).

The relationships and bonds are made out of edges and the connection and person or company is made out of vertices and together they make up a system or network (Newman

2003). The vertex represents an entity in the network and the edges illustrates the relationship and connection between the different vertices as illustrated in figure 1(Newman 2003).

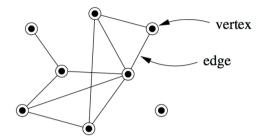


Fig 1: A small example network with eight vertices and ten edges. (Newman 2003)

Depending on the location of the individual or company edges within a network it is possible to determine how far or close the vertex is from the strategic resource they need (Lin 1999). In this report, the vertex will be referred as actors and the edges as ties or connection since (Newman 2003) states that those terms are used when studying social network from a sociology perspective.

3.3 The ARA- model

The ARA- model was proposed by Johansson and Håkansson in 1992 as a means to study interpersonal interactions in a business setting (Ford et al. 2008). The model consists of three layers Actors, Resources, and Activities (Ford et al. 2008). The Actor, either an individual or a business, controls the resources and perform activities to create value of the resources. In the setting of this study, the Actors refers to the entrepreneurs and the individuals they interact with, the Resources are accessed through using the social capital built up by the entrepreneurs and the Activities is the processes conducted by the incubator and the entrepreneurs during the incubation (Ford et al. 2008). These entities are changed into Activity links, Resource Ties and Actor Bonds to allow the researcher to study the interaction in the wider network (Ford et al. 2008). By using the ARA-model the researcher gets a better view of how the business relationships are functioning (Ford et al. 2008). The ARA model has rarely been used to analyze networking in the incubation process more in depth. However, it has been used frequently in other studies that are not related to incubation to examine networks. Therefore, this model is believed to contribute to get a better understanding on how network operates and resources are exchanged at incubators. Bellow the ARA model will be modified to fit the study of incubator using social capital theory and social network theory. This modified model will allow the report to study the proposed

research questions and examine how the incubator and entrepreneurs network is functioning to create value for the entrepreneurs.

3.3.1 Activity links

Activity links are defined as activities performed to access resource, this could be activities such as producing, selling and buying (Hosseini, Dadfar 2012, Eriksson, Vaghult 2000). In this study, incubators open up possibilities for the entrepreneurs to access or perform activity links. The incubator can either focus on providing the entrepreneurs with direct support or indirect support (Amezcua et al. 2013). The latter, is shown to be the most effective way for entrepreneurs to access the needed resources as it is essentially internal networking which (Lyons 2000) has found to be most efficient. Furthermore, the incubators can be seen as a platform providing the option for entrepreneurs to engage in, to build social capital. Social capital is also expected to be the key to gain access to important resources as it allows the actor to leverage their actor bonds. Additionally, by being accepted into and being a part of an incubator is expected to build social credibility for the entrepreneur (Bøllingtoft, Ulhøi 2005, Lin 1999). The social credibility is believed to be essential when looking for accessing new resources through social networks (Lin 1999). The aim of this research is to study the internal networks as a separate entity as this is lacking in the current research. Therefore, the following research question has been formed:

Research question 1:

How do incubators facilitate and aid the development of the internal networks at the incubator and the social capital of the entrepreneurs, that enables the entrepreneurs to access necessary resources?

3.3.2 Resource ties

Resource ties are defined as the ties between two parties' respective resources, where both parties resources mutually adapt over time to each other (Ford et al. 2008). This will in this study be modified with the social capital theory, which is relying on the relationship being mutually beneficial (Lin 1999, Burt 2000, James 1990). Furthermore, all resources are heterogeneous meaning that their value depends on how they are connected and used within in a network (Ford et al. 2008). Additionally, resources can be both tangible assets such as physical assets and equipment but also intangible assets such as knowledge (Ford et al. 2008). One important type of resources is the access to information which enables the entrepreneur

to find opportunities and solution which otherwise may not be available for them (Lin 1999), this also allows the entrepreneur to save time. This study aims to show how social capital is an important factor in order to access crucial resources as efficiently as possible by relying on each other's resources and knowledge therefore the research question will be:

Research question 2:

How do the entrepreneurs adapt their interactions in order to better utilize each other's resources and expertise?

3.3.3 Actor bonds

Actor bonds are defined as the interpersonal links that are created through interactions between two different actors (Ford et al. 2008). These bonds may in turn create both new resource ties and activity links. The Strength of these bonds depends on how these relationships develops, but trust and mutual commitment are key factors to success (Ford et al. 2008). For the individual entrepreneur, this would mean that the ones that actively are searching for new relationship and bond creation are more likely to access and utilize the resources that exist within the incubator network. Furthermore, the accumulated social capital that is created through bonds can be used to gain access to other influencers with connections to outside networks and resources (Lin 1999). The connections between these actors can be illustrated through social network theory where patterns between the different actors can be identified (Newman 2003). This is a unique modification of the Actor bonds part of the ARA model that aims to use social network theory to visually map and compare the development of the entrepreneurs' networks. This is something that has not been done previously and will provide new view on how these networks are created and grow. As a result, the following research question has been formed:

Research question 3:

How does the entrepreneurs personal social network develop during the incubation process?

3.4 Summary

The most common obstacles that puts startups out of business are either lack of resources or knowledge (Liechtenstein, Lyons 1996). Incubators are created to take care of this problem

and providing the entrepreneurs with valuable resource and knowledge that otherwise would otherwise be hard to access (Bruneel et al. 2012).

Multiple studies have been done to identify how resources and knowledge are provided to the startups. However, the problem prior researcher faced is that there are many different types of incubators focusing on different activities and mixing the different types of incubators, this resulted in inconsistent results. There are two main types of activities being direct support and indirect support. Furthermore, the indirect support can be divided into external networks and internal networks (Lyons 2000). The internal network has shown to be the most efficient way to access resources in social capital theory (Lyons 2000). In social capital the flow of information, influencers and social credibility are believed to be essential to access new resources. Therefore, this research aims to look at one single incubator that is focusing on internal networking.

The analysis of the research questions will be structured and examined through the ARA-model, to give a deeper understanding of the how the personal network is affected by the incubation process, it will also be examined through social network theory (Newman 2003).

5 Methodology

5.1 Scientific approach

An extensive literature review was done prior to the data collection and the formation of the research question in order to learn about different types of incubators, social capital theory and social networking theory. Due to scarcity of research on the subject an inductive exploratory design was conducted. A qualitative approach is done to get in depth analysis and add new insight to the existing theories. Furthermore, *the incubator* was chosen due to its focus on internal networks but the entrepreneurs were sampled by the snowball method as well as convenience. The research design was formed by a case study design that (Bryman, p. 59-62) advocates when the nature of the research is to find patterns or examine of a setting in a single case, of either an organization, location, person or event. By using the case study method, the aim is to analyze in depth and explore what the unique future of this incubator is and how that affect the individual entrepreneur at *the incubator*. Seven in depth interview were conducted to examine the research questions.

5.2 Data collection approach

The collection of the data was a mix of both grounded theory and analytical induction. Grounded theory is described as "theory that was derived from data, systematically gathered and analyzed through the research process. In this method, data collection, analysis, and eventual theory stand in close relationship to one another" and analytic induction is described as "an approach to the analysis of data in which the researcher seeks universal explanations of phenomena by pursuing the collection of data until no cases that are inconsistent with a hypothetical explanation (deviant or negative cases) of a phenomenon are found" (Bryman, p. 574-578.) Firstly, an extensive literature research was conducted after which a hypothetical research question was formed. Secondly, two informal interviews took place with two experts on the subject and the research question was iterated again. Thirdly, data was collected and the research question was iterated once again. These three steps followed an analytic induction strategy where the research question collectively was changed after findings in prior research and data. However, the complication of the analytical induction strategy is that it is hard to know when to end the data collection. This was handled by complementing the analytic induction with a grounded theory approach. Furthermore, this meant that the data collected in this research was constantly coded and compared until theoretical saturation was reached. This was achieved after only seven interviews as the interviewees expressed the same codes, which was in line with the literature research and informal interviews conducted before the data collection. The signs were specifically that all the entrepreneurs expressed the importance of the internal network at the incubator and that patterns could be seen in the development of their personal networks. Finally, some clarifications were made by telephone and email to add to the data.

5.3 Sample

5.3.1 Incubator

To add to the literature and solve the issue with mixed results due to working with multiple types of incubators this study will focus on only one incubator. To answer the research questions regarding internal networks an incubator with a focus on these internal networks was chosen. *The incubator* was identified by informal interviews and background research prior to the data collection. In this process, multiple incubator in Stockholm were considered. Since the Stockholm area is one of the most interesting startup ecosystems in the world the

choice to stay in this area was not hard to make but the lack of time and convenience of the geographical delimitation of Stockholm also played a part in the decision. The decision to focus on only one incubator affects the transferability of the study as the review of the Stockholm incubation scene has led to the conclusion that the model of the chosen incubator with its focus on internal networks is fairly unique. This implies that the study will be hard to replicate to confirm the results.

5.3.2 Entrepreneurs and incubator manager

Within *the incubator* seven different interviews took place. To get the best understanding and overlook of the organization and the extension of the networks both entrepreneurs that are currently a part of *the incubator* and those who have left was interviewed. The credibility was effected in the case with the entrepreneurs that had already left *the incubator* as they might have a harder time to remember what they went through during their incubation.

Furthermore, the entrepreneur interviews were also complemented with an interview with the manager of *the incubator* to study the manager's perspective and view of how networking took place at *the incubator*. The sample was chosen by both the convenience and by the snowball-method. The number of interviews was dependent on when enough information was gathered and patterns was identified to come to a conclusion. Every interview was with a single entrepreneur from different companies, the choice was made to ask different companies to not confuse personal and company networks as well as to increase coverage at *the incubator*.

5.4 Interview design

Interviews was formed as qualitative semi-structured interviews, to capture both comparability between the interviewees and allow individual differences to occur (Bryman, p. 465-490.) There were two different types of interview guides, one for the startups and one for the manager of *the incubator*. The reason behind this was that the managers' perspective differs from the entrepreneurs and the question thus have to be customized after that. One pilot interview was held prior to the event of the first interview to make sure that the respondent understood the questionnaire and did not feel uncomfortable with the questions as well as the information. No changes were made after the pilot interview. The questions were formed as open "how" and "why" question to get as much and individual information as

possible (Bryman, p. 465-490) It is a possibility that the views and desire to find result of the researchers affected the confirmability of the interview design.

5.4.1 The interview guide for the Entrepreneurs

The interview design was formed into four different parts. Where the first part was background information the other three follows the analysis model of ARA with the second set of questions focused on activity links, the third on resource ties and the fourth on the actor.

The background was focused on demographic questions about gender, age, how long they have been at *the incubator*, when they got there, when they left, if this was their first startup or if they have been at another incubator before etc. This to make sure that the ones interviewed were relevant and valid for the research question (Bryman, p.465-490).

The second part was designed to ask very open question about the activity links occurring at *the incubator*, without them knowing what the aim was to establish their view on the value of networking and the benefits of *the incubator*. The following type of questions were asked, how and why the entrepreneur decided to enter *the incubator*, what they expected to gain from the incubation and what service they utilized first as they entered *the incubator*.

The third section was focused on resources at *the incubator* and the resources ties between the entrepreneurs. The interviewee was asked question about how networking took place at *the incubator* and real life examples of that and what they had gained from it. This was done by asking how they had come in contact with the right people to access the resources the needed.

The fourth and final part focused on actor bonds meaning how the social network of the entrepreneurs developed as a result of the incubation. The entrepreneur was asked to draw and describe their social network, that was connected to the startup, before they entered *the incubator*. Control questions about different types of networks were asked to ensure nothing was left out and that they understood the assignment correctly. Then the entrepreneur was asked to describe how their network had developed during the incubation by drawing their current network according to the social network theory. The purpose of this was to compare

the two to see the development of their personal network as a result of the incubation. However, there is an issue too ask the entrepreneurs to describe their old networks prior to the incubation as they may struggle to remember the exact connections which in turn affects the credibility of the research.

5.4.2 The Interview guide for the manager of the incubator

The questions asked to the manager closely mirrored the interview design of the entrepreneurs but had a bigger focus on *the incubators* background and the activities performed by *the incubator*. It was conducted to see if the managers and entrepreneurs perceived *the incubator* and the networking at *the incubator* the same way. Furthermore, the manager was asked to specify the partner companies tied to *the incubator*. The questions were modified slightly to get the view of *the incubator*.

5.5 Interviews

Before the interviews information were collected about the entrepreneurs' startups to make sure that the conversation and interview was valuable. The interviews were conducted in the native language of the entrepreneurs being Swedish in all cases. This allowed for a more relaxed and precise dialog but had the shortcoming that some of the nuances might be lost in the translation into English. The number of entrepreneurs interviewed was selected by a theoretical saturation approach (Bryman, p. 574-578.) All interviews were recorded and took place in requested location of the interviewee, usually in their offices, in a quiet and closed of room, to limit both distractions and assure that the interviewed were in a familiar comfortable place (Bryman, p. 465-490.) Each interview was with one of the founders of the chosen company as this allowed for an easier view of the personal network of the entrepreneur rather than that of the company. The interviews took between 25-40 minutes and were all anonymous to make sure that the interviewees were comfortable to speak freely about their thoughts and connections. There were always two interviewers present at all interviews where one took notes and kept tracked that all necessary information was gathered and the other one was asking the questions. The interview guide was not followed strictly in order, instead questions were asked when they fitted the conversation the best. This to encourage free speaking and allowed for individuals to open up (Bryman, p.465-490.) All interviews were transcribed to simplify the analysis and make sure that the human nature of limitation of memory does not hamper the results of the interviews. As well as to make a better and a

second examination of the interview to make sure that nothing is missed (Bryman, p. 465-490).

6 Case

Here the empirical findings of the study will be presented and analyzed. This was done in four stages. First a short (i) background will be given about the interviewed entrepreneur and their respective startup. Then the ARA Model was used to analyze and structure the interviews. This was done by looking at each of the ARA parts separately. This will begin with (ii) Activity links followed (iii) Resource ties and (iv) Actor bonds. Before the interviews with the entrepreneurs are discussed the interview with *the incubator* manager will be analyzed as a point of comparison to the views of the entrepreneurs. An overview of the entrepreneurs interviewed in the sample is illustrated in figure 2.

	First startup	First time at an incubator	Still at the incubator	Time at the incubator	Phase pre incubator	Industry
Alpha	Yes	Yes	No	10 months	Development	App / Social
Beta	Yes	No	Yes	16 months	Development	App/ Media
Charlie	Yes	Yes	Yes	3 months	Launched	Service/ Research
Delta	Yes	Yes	No	14 months	Launched	App/ Food
Echo	No	No	No	10 months	Development	App/ Social
Foxtrot	No	No	No	9 months	Launched	Finance

Fig 2: Summary of interviewed entrepreneurs.

6.1 The manager of the incubator

The manager has been at that incubator for two years and had no prior experience from incubators. However, the manager had experience from startups and was running a startup prior to the employment at the incubator. The manager's role is to take care of the incubators partnership, manage the contact with the entrepreneurs at the incubator and arrange Wednesday's meeting for all the entrepreneurs to take part in.

6.1.1 Background

The chosen incubator is a nonprofit, bound to a university that has produced many successful startups over the years. *The incubator* has been around since the early 2000s and currently houses ten startups of different sizes. Every startup is invited to stay for at least 6 months at

the incubator but most startups stay for around one year. Furthermore, *the incubator* does not take any equity share from the entrepreneurs. All the entrepreneurs and the management are located in the same building and on the same floor in central Stockholm. The space is small but each company has their own private office that can be shut of from the others, but there are also common areas where the entrepreneurs meet regularly. What all the startups have in common is that they have been accepted into the advisory board consisting of six high profile and extremely successful entrepreneurs. *The incubator* has open acceptance opportunities four times every year where the entrepreneurs get to pitch to the board. The requirements for the application is that the startup consists of a team and not a single entrepreneur, at least one member of the team has to be a student or alumni of the associated university and the company must have a fairly finished product or service that can touch the market and be tested soon after the incubation starts. *The incubator* is funded by the associated university as well as profiled investor associated with the university.

6.1.2 The support function

6.1.2.1 Direct support

The incubator offers the entrepreneurs some direct support in the form of office space for at least six months guaranteed and free of charge as well as limited mentoring and partner companies that offers help with revision, legal issues certain consulting services and products. These services are offered to the companies that enter *the incubator* but it is entirely up to them to decide to use them or not. This also becomes apparent as the extent to which the services are used do vary vastly from company to company.

6.1.2.2 Indirect support

The incubator is also focused on internal networking but in the informal sense among the entrepreneurs rather than with external networks. The incubator has an external network and connections to other incubators in the Stockholm region and meets with them regularly. This network though is more about understanding trends and helping each other out then focus on the incubates. Furthermore, the incubators partner companies are connected to the entrepreneurs but all the entrepreneur share the same contacts at these companies and these relations are purely business development based and not related to eventual funding of the startups. The incubator does not act in a matchmaking capacity but do occasionally aid the entrepreneurs by acting as an influencer. Although the incubator has been offered

partnerships with venture companies these offers have been turned down. The decision to turn these offers down was based on the idea that it is better for the entrepreneurs to find the right investor for themselves rather than being pushed down a certain path. The manager stated that "We have chosen to keep it as open as possible and not recommend any specific investors. It should be up to the companies to find the best match for them and that may differ from company to company" Furthermore this allows the incubator to maintain its small size and informal nature that they deem to be key to their success. The incubator also has very few arranged activities and it's entirely up to the entrepreneurs if they want to participate or not, which is vastly different from many other incubators that requires the entrepreneurs to attend many different events. The only exception is the weekly Wednesday meeting where at least one member of each team must participate. The purpose of these meetings is partly to keep the management updated of what's going on but mainly to encourage the companies to talk about their problems and ask each other for help.

6.1.3 Interaction between companies

The informal nature of *the incubator* was very much intended by the management as means of making the entrepreneurs to interact. The manager states that they often hear that this is one of the most appreciated aspects of the incubator in combination with the networking. The manager made the following statement regarding the four pillars the incubator is based around "The fourth pillar is actually what the companies most often consider to be the most important and that is actually networking, I am not saying this just because of this interview, but this is the feedback we are receiving. Sure, people do appreciate being able to shut of their offices but the ability to knock on the door of a similar company to discuss ideas and challenges is very valuable." These interaction is believed to happen during the weekly meeting and after works that the incubator occasionally arranges but to a larger extent in more informal ways. This can be in the common area and the kitchen as well as when people simply meet in the corridors and knock on each other's doors. Furthermore, these informal interactions are believed to be essential for the flow of information between the entrepreneurs. The management believes that trust is a key issue to increase these interaction, they also state that when people get more opportunities to meet and get to know each other outside of the work setting such as the after works, the trust increase. This is also believed correlate with companies leaving and entering the incubator. The resource being exchanged between the companies are mostly more simple knowledge exchanges as well as tips and

ideas of contacts. As many of the companies are in similar phases there is often someone present that can offer a contact or some insight into an issue.

6.2 Entrepreneur Alpha

6.2.1Background

Entrepreneur Alpha runs a tech/social startup together with Alphas co-founder. Alpha and Alphas co-founder are between 20-25 year old and they founded their startup during their university studies. Alpha stayed at *the incubator* for 12 months and left *the incubator* about a year prior to the interview. The startup was only 5-6 weeks old when Alpha entered *the incubator* and neither Alpha nor his co-founder had any prior startup experience.

6.2.2Activity links

Alpha was mostly present during the Wednesday meeting hosted by the incubator. Although Alpha mentioned that these arranged meetings were less effective and rewarding than more informal interactions with other individuals at the incubator and ended up mostly skipping them. The informal meetings were described as random encounters in the corridors of the *incubator* or in the common areas. These encounters usually resulted in discussing frustrations and receiving simple tips and information that might help Alpha to move forward with the current issue and access the resources needed to solve these problems. Furthermore, Alpha emphasized on the importance of the informal meetings taking place at *the incubator* "The most typical scenario when you faced a problem was to enter the common area and lie down on the couch and think about the problem. After a while some other entrepreneur joins you and all of a sudden you are sitting there and addressing the problem together, usually in just five minutes. This may not solve the problem directly, but leads to an idea that may solve the problem at a later stage, those are the meetings that are the most valuable". Alpha mentioned that pitching for the respected advisory board consisting of successful entrepreneurs was rewarding but was disappointed by the fact that they were hard to reach and received very little of advice from the advisory board. Although Alpha said that as their company grew they got more in touch with one of the members on the advisory board that gave them valuable advice. On the other hand, Alpha was convinced that the name of the incubator and the reputation of the advisory board reflected well on them and lent them credibility. Furthermore, they were the first and only startup to be accepted into the incubator

with the process being run by the new and prominent advisory board and Alpha believed that this gave them a lot of credibility. When communicating externally Alpha frequently used the name of *the incubator* and the advisory board as a means of borrowing their credibility. This was very much successful as it allowed Alpha to more easily access resources they otherwise might have struggled to attain. These resources were mostly financial investors and building of contacts and social capital.

6.2.3 Resource ties

Alpha mostly got simple tips and information from the other entrepreneurs such as when Alpha got some information that aided them in their search for a software engineer. Furthermore, Alpha did develop a closer relationship with a member of another incubated company that faced similar programming and customer acquisition/retention issues that they did. This contact was used more frequently than others as they had more in common than the other entrepreneurs. Finally, Alpha used some of the direct support offered by *the incubator* such as accounting and legal services. Alpha found the legal service to be helpful, especially when they were in the process of raising new capital and drafting contracts with investors.

6.2.4 Actor bond

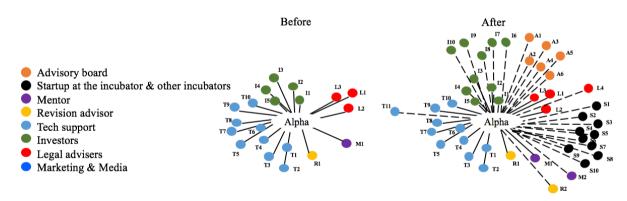


Fig 3: Illustration over the development of the Alphas network.

6.2.4.1 Alphas network prior to incubation

As Alpha and Alphas co-founder founded the company just six weeks prior to getting accepted into *the incubator*, their startup were not that developed yet. At this point Alpha knew around ten different tech support such as software engineers and designers, five investors that were friends of the family, three legal advisers, one connection that helped them set up the company and one mentor prior to entering the incubation. These relations are illustrated in the picture above.

6.2.4.2 Alphas method of search for new relationships and bond creations

Alphas method of search, meaning how the entrepreneur searches for the resources needed, changed during the incubation and as their network grew. In the beginning, Alpha focused on finding relevant people in articles and online to then start searching for their email addresses. As Alphas network grew this method was abandoned. Instead Alpha leveraged the credibility of *the incubator* and Alphas growing social capital to ask new contacts for referrals until they found what they needed. Furthermore, the member of the advisory board that Alpha developed a relation with became an influencer and helped to open doors and access new contacts and resources. Additionally, Alpha had a closer relationship with one of the other entrepreneurs at *the incubator* where they mutually exchanged information to each other and gained trust to one another.

6.2.4.3 Network development after the incubation

Alpha developed relationships with all of the other entrepreneurs at *the incubator*. Furthermore, Alpha focused a lot on expanding their investor network and got in touch with powerful investors during the incubation process. Alpha mentions five different investors and investments funds which they gained a relationship to during the incubation process. Furthermore, Alpha created a new bond with a legal adviser, revision advisor and a mentor which both were provided by *the incubator*. Alpha also mentions that, through one of the entrepreneurs at *the incubator*, Alpha got in contact with a new software developer.

6.3 Entrepreneur Beta

6.3.1Background

Entrepreneur Beta among with Betas two co-founders who are between 20-25 years old, have been staying the longest time of all the entrepreneurs and have spent 16 months at *the incubator*. This is the first company Beta has created but the startup has spent some time at another incubator before arriving at *the incubator* examined in this study. Beta is running a tech/media startup that recently launched their first product.

6.3.2 Activity links

Beta was present at the Wednesday meetings and found that the meetings were productive and a great way of gaining help from the other entrepreneurs. Beta was also a part of the

venture coach program that is available at *the incubator* and was assigned an entrepreneur and alumni of the associated school as a mentor. Furthermore, Beta also mentions that there are occasionally after works arranged by *the incubator* but that these often were used to get in contact with students at the associated university. Beta points out regarding the networking that "it is a give and take environment" and that "the tools are there but it's up to you to make something out of it". Furthermore, Beta claims that Beta expected the interactions between the entrepreneurs to be more formalized but was positively surprised by the laid back nature of these encounters as well as the value contributed by them. Beta also believes becoming admitted to *the incubator* and being approved by the esteemed advisory board is a sign of credibility for the startup. Beta has used the name of *the incubator* when contacting external parties and mentions that the amount of answers and interest Beta got increased as a result. The opportunity to pitch to the advisory board also gave Beta some substantial feedback.

6.3.3Resource ties

Beta believes that the informal exchange at *the incubator* is very efficient and that is mutually beneficial for all parties. Although Beta does not specify any particular relation at *the incubator* as being more or less rewarding, Beta is frequently mentioned in the other interviews as a great contact to them. This implies that Beta does share knowledge and experience accumulated during Betas long stay at *the incubator*. When asked to clarify what Beta found to be valuable with the exchanges between entrepreneurs Beta mentioned that these relations has led to new contacts with financial investors as wells as more direct knowledge exchanges.

6.3.4 Actor bonds

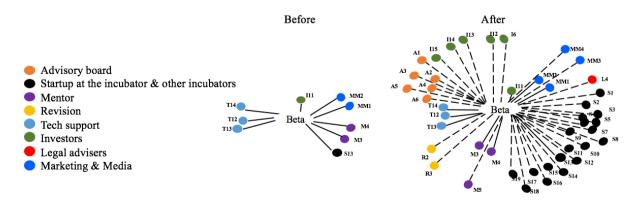


Fig 4: Illustration over the development of the Betas network

6.3.4.1 Betas Network prior to the incubation

Betas network prior to the incubation period was rather small and Beta relied heavily on Betas co-founders as the three of them had different areas of expertise. Before entering the *the incubator*, Beta and his co-founders held a position at another incubator in Stockholm. Beta states that the mentor they were given at this incubator was the the most important person for them during this period. Beside the mentor and Betas co-founders' expertise, finance and tech, Beta had two marketing/media connections, one startup mentor and one financial investor.

6.3.4.2 Betas method of search for new relationships and bond creations

Betas method of search was to first look for a common connection with the targeted actor and approach the desired actor through that common connection. If this was not possible the second step would be to look for an email address and keep on emailing until Beta received a response. Furthermore, Beta tried to keep the first meeting relaxed and casual to not force the new contact into something that he/she is not comfortable with. Beta also mentions that they included *the incubator* name in email titles in the hope of increasing responses. Additionally, Beta paid a lot of attention to creating strong relationships with the other entrepreneurs at *the incubator*.

6.3.4.3 Network development after incubation

Beta has been staying at *the incubator* for a long time and Betas network has developed in many different directions. Furthermore, almost all the other respondents mentioned Beta as someone they frequently talked to, this indicates that Beta has the trust of the other entrepreneurs at *the incubator*. Additionally, Beta contacted two of the partner companies provided by *the incubator* which were one legal advisor and one revision advisor. Beta also utilized the mentor program established at *the incubator* and had help of one mentor from that program. Furthermore, Beta focused heavily on developing relationships with the other entrepreneurs at *the incubator* and since Beta has been there for a long time Beta has attained a broad network of entrepreneurs. Through these entrepreneurs and startup events Beta has also managed to create relationship with entrepreneurs from other incubators in Stockholm. Furthermore, Beta has created relationships with five different investment funds during the time at *the incubator*.

6.4 Entrepreneur Charlie

6.4.1Background

Charlie together with Charlies co-founders are one of the more recent entrants to *the incubator* and only moved in three months prior to the interview. The startup was founded by Charlie and Charlies two co-founders and is providing information gathering and research to its clients. Charlie and the co-founders are in the ages between 25-35 years and has prior work experience from the industry their startup is entering. This is the first startup that Charlie has founded and the startup was created just a few months prior to the incubation.

6.4.2Activity links

Charlie has not studied at the university associated with *the incubator* and therefore had less knowledge about and expectations on *the incubator*. Charlie was pleasantly surprised about the interactions with the other entrepreneurs. Furthermore, Charlie spoke highly of the Wednesday meetings and emphasized on the importance to share the current obstacles that Charlie was facing. Additionally, Charlie also mentioned how important the tips and information that *the incubator* has shared with them regarding outside events and meetings. Although Charlie talks a lot about the direct support *the incubator* offers in terms of sponsorships and software products as well as the advantage of having access to an office downtown and close to Charlies customers. Charlie especially highlights that they have relied a lot on the legal counseling that *the incubator* offers. Charlie and Charlies co-founders are more senior than most of the other entrepreneurs and have all had a few years work experience in industries that are relevant to their current business.

6.4.3 Resource ties

Charlie emphasized that the first thing they did when they encountered problems were to go and check with the other entrepreneurs at *the incubator* for help. The help was mostly related to informal interactions where Charlie got help with knowledge and expertise regarding specific areas of interests such as the funding processes, digital marketing, startup day's/events and tech related issues and methods from the other entrepreneurs. On the other hand, Charlie has been sharing their developed network with the other entrepreneurs more than they have utilized the other entrepreneurs' networks. For example, Charlie helped one of the other startups to get in touch and hire an it-intern through Charlies network. Charlie states

that "the community here and the daily interactions is not something you can just buy" and that "you can exchange a lot of knowledge and that is very valuable" this confirms the notion that there is mutual benefits for all the parties and that the entrepreneurs are playing at each other's strengths.

6.4.4 Actor bonds

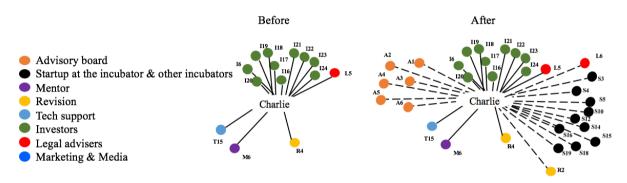


Fig 5: Illustration over the development of the Charlie's network

6.4.4.1 Charlies network prior to the incubation

Charlie together with Charlies co-founders are bit older than the other entrepreneurs in the sample and have prior work experience that is relevant for the market their current startup is active in. This work experience has allowed Charlie to create an extensive network which has been key for the customer acquisition in their startup. Prior to joining *the incubator* Charlie knew ten different financial investors, one mentor, one revision advisor and one tech engineer.

6.4.4.2 Charlies method of search for new relationships and bond creations

When Charlie is looking for new connections Charlie first asks the manager at *the incubator* if any of the partner companies associated with *the incubator* can aide them, if this does not lead to any results Charlie talks to the other entrepreneurs. If this still does not yield the desired results Charlie turns to a social media platform for startups to get advice from other startups. Furthermore, Charlie also reaches out to Charlies network of old work contacts or university friends to see if Charlie can reach the desired connection.

6.4.4.3 Network development after incubation

As Charlie already had an extended network and only been at *the incubator* for a couple of months the main connection Charlie created so far are to the other entrepreneurs at *the incubator*. Charlie also mentions that they have been visiting plenty of startups events that

they have been invited to through *the incubator* which resulted in new connections to a legal advisory firm. Furthermore, Charlie has also been in contact with the revision advisory firm provided by *the incubator*. Additionally, Charlie seemed to be an important influence for other entrepreneurs at *the incubator* as they have been able to share their broad network to some of them.

6.5 Entrepreneur Delta

6.5.1 Background

Delta is running an app/food/delivery company together with Delta's co-founder and spent about 14 months at *the incubator* before leaving it. Delta and Delta's co-founder are in the age between 20-25. This is Deltas first company and it was created just a few months prior to the incubation.

6.5.2 Activity links

Deltas company is service based and were in the process of building their supplier base as they entered the incubation process. This meant that Delta spent very little time at *the incubator* offices during the first three months of the incubation and did not utilize the services and possibilities offered by *the incubator* during this time. Furthermore, Delta emphasized that it is very much up to the entrepreneurs to make something out of the incubation period and that they did not utilize this opportunity to its full extent. Once Delta started spending more time at *the incubator* Delta realized that there was a lot of value to be had, both from the direct support such as the consultancy services offered and the networking among the companies. Delta felt that "the incubator was the perfect place to learn how to startup and the access to the more experienced entrepreneurs was possibly the most important aspect of the incubation". Delta also used the legitimacy of the advisory board and the incubator and believes that this made it possible to reach contacts that otherwise may have been out of reach.

6.5.3 Resource ties

Delta emphasized that the main reason to apply to *the incubator* was to learn how to run a startup. Furthermore, Delta expressed that the access to other entrepreneurs and their experiences and knowledge was one of the most valuable assets at *the incubator*.

Additionally, Delta mentioned that "regardless if you are running a med-tech company or, like us, a food company you are still facing the same problems."...."instead of doing three hours of research to find someone that can fix the problem at a good price, the other entrepreneurs can just give us a name that is willing to do it for a good price. In 5 minutes, we then managed to get something that normally would take three hours for us to find". Delta also mentioned that whenever they face a problem they just went to one of the other startups offices and asked for help. However, Delta was not that active in the beginning of the incubation period which resulted in Delta not knowing the other entrepreneurs that well. This manifested itself as a possible reason to why Delta had to spend a relatively high amount of time researching on how to get funded. It is likely that Delta could have received this information from the other entrepreneur if Delta had been more active at the incubator.

6.5.4 Actor bonds

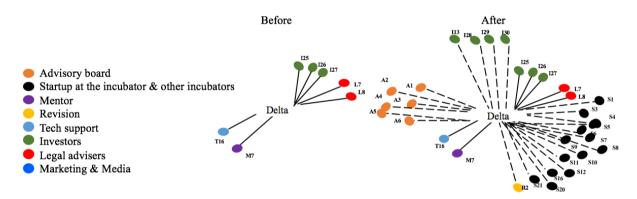


Fig 6: Illustration over the development of the Delta network

6.5.4.1 Deltas network prior to the incubation

Delta knew three financial investors prior to the incubation and had two family members that supported Delta and Deltas co-worker with legal advices. Furthermore, one of the financial investors had an extensive network and experience from the startup world and served as a mentor for Delta and Deltas co-worker. This mentor also introduced Delta to a connection which had expertise in tech support and this connection was also formed before Delta entered *the incubator*.

6.5.4.2 Deltas method of search for new relationships and bond creations

Delta mentions that their mentor prior to the incubation has served as an important influencer and has introduced Delta to a broad network. Furthermore, Delta emphasizes that the search method is depending on what type of connection that is desired. Delta often approached the

other entrepreneurs at *the incubator* when Delta was stuck on something that is related to a startup process. On the other hand, if Delta was looking to find a financial investor Delta searched in newspapers or social media platforms to find the suitable investor.

6.5.4.3Network development after incubation

Delta emphasize that the relationship built with the other entrepreneurs at *the incubator* were the most important relationships created during the incubation. Furthermore, Delta gained connections with four new investors. *The incubator* provided Delta with a connection to an revision firm that Delta has been in contact with. Delta also mentions that *the incubator* and the advisory board has served as an important credibility function when Delta created new connections with investors as well as customers. Furthermore, *the incubator* acted as an important influencer when Delta was given the opportunity to pitch to an outside company.

6.6 Entrepreneur Echo

6.6.1 Background

Echo is a serial entrepreneur with successful startup and exits. Furthermore, Echo has previous incubation experience with the earlier startups. Echo entered *the incubator* a few months after the inception of Echos latest startup along with Echos co-founders who all are in the ages between 20-25. Echos new startup is a social/app company and the company left *the incubator* after less than a year mostly due to the fact that the team out grew the office space provided by *the incubator*.

6.6.2 Activity links

Echo was present at the Wednesday meetings but found them to be less rewarding than the more informal interactions at *the incubator* and that they often fell apart for more personal discussions. The first thing Echo started utilizing when they entered *the incubator* was the interaction with the other entrepreneurs and Echo felt that these relationships were closer to friendships compared to another incubator Echo had previously been a part of. *The incubator* also arranged for a high profile politician to meet the entrepreneurs during Echos stay, but this quick encounter was not very rewarding but rather a meet and greet. At *the incubator*, there is only one mandatory meeting each week and that is the Wednesday meeting, other than that it is up to the entrepreneurs how they use *the incubator* and their services and Echo

emphasizes the freedom offered at *the incubator* regarding all activities. Echo stated that this was preferable in the stage the company was in when they entered *the incubator* but that Echo also sees benefits to the more common and strictly controlled approach. Additionally, Echo believed that the advisory board were an important source of credibility

6.6.3 Resource ties

Echo expressed that they had a closer relationship with entrepreneurs from two different startups at *the incubator*. Furthermore, Echo also had a close relationship with one of the managers at *the incubator* and the manager introduced Echo to the managers' social network. Echo also mentions the benefits of having the other entrepreneurs nearby and that it was easy to contact them whenever they needed an advice.

6.6.4 Actor bonds

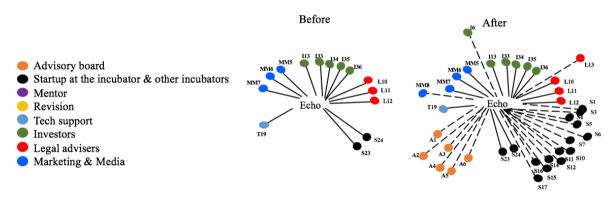


Fig 7: Illustration over the development of the Echo network

6.6.4.1Echos network prior to the incubation

Echo had previous startup experience with three different startups and held positions at two incubators with these startups. Therefore, Echo already had an extended network prior to the incubation. Echo knew three legal advisors, one tech support, four financial investors, two different incubators and three media and marketing actors. Additionally, Echo expressed that Echo had a developed social network overall but lacked tech support actors.

6.6.4.2 Echos method of search for new relationships and bond creations

Echo emphasized that Echos main method of search, when trying to create new connections, was to network. Furthermore, this networking was divided into two different methods where the first one being to go and look with the other entrepreneurs at *the incubator* to see if they

could help Echo and the second one is to visit startup events and find people that could help Echo there.

6.6.4.2 Network development after incubation

Echo emphasize that the internal network between the entrepreneurs was very good and one of the most important things that they gained from joining *the incubator*. Furthermore, Eco gained a legal advisor through partnerships of *the incubator* and one financial investor through networks at *the incubator*. Additionally, one of the manager of *the incubator* worked as an influencer and provided Echo with important connections.

6.7 Entrepreneur Foxtrot

6.7.1 Background

Entrepreneur Foxtrot together with the co-founders founded their startup six months prior to joining the incubator. Foxtrot and Foxtrots co-founders are all between 25-35 years old and had left successful careers to pursue this startup. Foxtrot stayed at *the incubator* for nine months and the startup then moved on to their own offices downtown as the startup was a success. The startup is a finance company and a service provider and it is not Foxtrots first startup. Finally, Foxtrot has had previous startup experience and has even been at *the incubator* before while working for another startup.

6.7.2 Activity links

Foxtrot entered *the incubator* in the same time as the management and the advisory board of *the incubator* was changed which affected their time at the incubator in a few ways.

One such effect was that Foxtrot did not get the opportunity to be provided with a mentor as the other startups in the sample were. Foxtrot participated in the Wednesday meeting but felt that the real networking took place in the corridors among the entrepreneurs. Although these connections could start in the meetings when a problem was discussed to then be taken outside. Foxtrot also stated that after a while, when you get to know each other you knew who to ask about what, to get a fast solution to your problem. Foxtrot also highlights the importance of having somewhere to go each day, as that a real office setting put some external pressure on the startups to continue their work, even if this pressure is just informal from the other entrepreneurs. Furthermore, Foxtrot recalls there being both after works as

well as a Christmas party and opportunities to meet the students of the connected university being arranged by *the incubator*. Foxtrot also used the accounting services offered by *the incubator* and are still using the same firm.

6.7.3 Resource ties

As Foxtrot were more senior than most of the other entrepreneurs at *the incubator* it appears Foxtrot shared more resources with the other entrepreneurs than Foxtrot got in return. Foxtrot recalls helping one of the other companies to get in contact with a financial investor that eventually ended with them receiving an investment. Furthermore Foxtrot mentioned that " we may have helped another company that was in the med-tech industry as one of my cofounders had a background in that industry". Foxtrot also emphasized that they had something to gain from the exchanges themselves but their end of the exchange appears to have been more about knowledge and tips rather than receiving more contacts. Although Foxtrot did recall getting in contact with one potential investor through one of the other companies and stated that "I am sure that we got many more contacts through the other companies I just can't recall exactly which connections it was". This indicates that Foxtrot may have issues to recall exactly how foxtrots social network looked at the time of the incubation.

6.7.4 Actor bonds

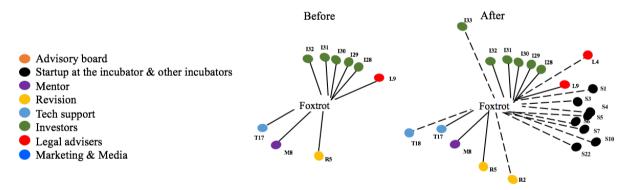


Fig 8: Illustration over the development of the Foxtrots network

6.7.4.1 Foxtrots network prior to the incubation

Foxtrot is a bit older than the rest of the sample and have worked a few years prior to the incubation. Therefore, Foxtrot network is more developed than the younger entrepreneurs' networks. Although this does not show properly in figure 8 as foxtrot had issues remembering the specifics of foxtrots connections prior to the incubation. Foxtrot also

emphasize that Foxtrot received a mentor and a financial investor prior to the incubation that has an extensive network and is able to help Foxtrot to get in contact with many different connections. Besides the mentor, Foxtrot knew four other financial investors that could be contacted if needed. Furthermore, Foxtrot emphasize that Foxtrot was not the one handling the relationships and networks for their startup and that they had a legal advisor, tech and revision skills among the founders.

6.7.4.2 Foxtrots method of search for new relationships and bond creations

Foxtrot mentions that their mentor and investor prior the incubation acted as a successful influencer and helped Foxtrot reach contacts that would otherwise have been difficult to find. Furthermore, Foxtrot emphasize that the other entrepreneurs were important to handle issues that came with the startup process. They often faced similar problems and could help each other out. Foxtrot also mentioned that after a while Foxtrot learned who to ask depending on the nature of the question.

6.7.4.3 Network development after incubation

Foxtrot gained three connections through *the incubators* partnerships which has been of great value for them. Those three connections were a legal advisor, revision advisor and a tech support connection. Furthermore, Foxtrot also got a new investor connection through one of the other entrepreneurs at *the incubator*. Foxtrot already had a broad network when they entered *the incubator* and therefore served more as an influencer for the younger entrepreneurs. It should be noted that Foxtrot did not get in contact with the advisory board as the board was added to the incubator after foxtrot had already joined.

7 Results and discussion

Below the aggregated findings of the interviews will be analyzed under the same categories as above and compared to the statements of *the incubator* regarding the same issues.

7.1 Activity links

All of the entrepreneurs emphasized the importance of the internal network at *the incubator*. *The incubator* is also aware of the importance of these informal interactions and is doing it's best to create an environment that facilitates and encourages this type of behavior between the companies and it is even one of the four pillars on which *the incubator* is built. The

manager made the following statement "The fourth pillar is actually what the companies most often consider to be the most important and that is actually networking, I am not saying this just because of this interview, but this is the feedback we are receiving. Sure, people do appreciate being able to shut of their offices but the ability to knock on the door of a similar company to discuss ideas and challenges is very valuable". Furthermore, two thirds of the sample entrepreneurs are aware of and use the incubators reputation as a source of credibility to great effect. The good reputation of the incubator, its advisory board and the associated university are all factors that can be leveraged by the entrepreneurs. The use of this credibility has allowed the entrepreneurs to more easily receive new contacts and resources. These actions can range from putting the incubators name in the subject line of an email to increase response rate to leveraging the fact that all the companies have been approved by the board as a means to justify their actions. This in line with (Lin 1999) take on social capital theory where Lin emphasize that social credibility is essential for accessing resource and lower the barrier to enter new networks for the entrepreneur. Among the companies that did not talk about credibility there was a trend of the entrepreneurs being more senior and with more developed networks reducing the need for that. Although just because they do not mention this it does not mean they don't indirectly benefit from the credibility the still receive by being a part of *the incubator*. To answer the research question:

Research question 1:

How do incubators facilitate and aid the development of the internal networks at the incubator and the social capital of the entrepreneurs, that enables the entrepreneurs to access necessary resources?

It appears that *the incubator* has created an environment where the internal networks are essential to the incubation process and has become an integral part of how the entrepreneurs access new resources. This is in line with (Lyons 2000) statement that the most important service the incubators offer is the internal network. To what extent this internal network is used is entirely up to the individual entrepreneurs in this incubator but as the value of the system is clear to all of the entrepreneurs there is no need for *the incubator* to force them to participate in any mandatory form of networking. The laissez faire approach of *the incubator* may be rather unique but is definitely effective in this setting and the as the manager stated "we assume that the companies knows what's best for them". Furthermore, the incubator

together with the advisory board are shown to lend important credibility to the entrepreneurs which enables them to access resources that would otherwise be hard to reach.

7.2 Resource ties

The entrepreneurs have built a system where they are becoming more and more dependent on each other to efficiently find and access resources. The entrepreneurs at the incubator has adapted their method of search as they have gotten to know each other and realizing that if they utilize each other strengths and expertise they can save time and effort looking for information that is already readily available just by talking to the right colleagues. This is a case of mutual adaptation as the entrepreneurs adjust to one another, which is in line with what social capital theory highlights that social relations relies on being mutually beneficial for both parties (Lin 1999, Burt 2000, James 1990). This may not be a conscious decision made by the entrepreneurs but as they discover the value of this system they all appear to adapt to the group's expectations and demands. The main resources being exchanged are knowledge and tips, that aid the companies to more quickly move forward in the startup process. Furthermore, (Lin 1999) emphasize that the access and flow of information is essential in imperfect markets where the entrepreneur may not be provided nor have access to all opportunities and information out there. With access to information flows (Nahapiet, Ghoshal 1998) highlights that the entrepreneur saves valuable time which Delta also states that "instead of doing three hours of research to find someone that can fix the problem at a good price, the other entrepreneurs can just give us a name that is willing to do it for a good price. In 5min we then managed to get something that normally would take three hours for us to find". Additionally, there are also many cases where the entrepreneurs share external contacts. As in the case with Foxtrot these connections even lead to an investment. This pattern may be enforced by the fact that the incubator has no intention of acting in a hitmaker capacity. The manager stated that "We have chosen to keep it as open as possible and not recommend any specific investors. It should be up to the companies to find the best match for them and that may differ from company to company". The entrepreneurs have instead replaced the services often provided by the incubator and its external network with an collective unspoken agreement to help each other to succeed. The social capital and trust between the companies are what makes the companies interested in sharing important information that they otherwise would have no reason to share. The informal events arranged by the incubator, such as after-works, further cements the informal approach and helps the

entrepreneurs to build trust and in many cases friendships. This is in line with (Ford et al. 2008) statement that trust is key to successfully build ties with other actors. Furthermore, *the incubator* appears to make sure there is always some more experienced entrepreneurs and as discovered in the study these entrepreneurs are often willing to share their experience and network with the other entrepreneurs. To answer the second research question:

Research question 2:

How do the entrepreneurs adapt their interactions in order to better utilize each other's resources and expertise?

It is clear that the entrepreneurs have adapted their method of search as a result of the trust between the entrepreneurs and the realization that by utilizing each other's strengths they can become more efficient and shorten this search process. Furthermore, Delta is a good example that highlights the importance of being active at *the incubator* to build social capital. Deltas initial failure to do so left them without the advice and help of the other entrepreneurs and this prolonged their funding process. Additionally, all entrepreneurs highlighted the importance of the internal network and saw it as the most valuable asset of the *incubator*. This adaptation is beneficial for all entrepreneurs, although the more experienced entrepreneurs in the sample showed that they exchanged more resources to the less experienced entrepreneurs than they got in return. Therefore, *the incubator* should prioritize to have a mix of both experienced and less experienced entrepreneurs at the *incubator*.

7.3 Actor Bonds

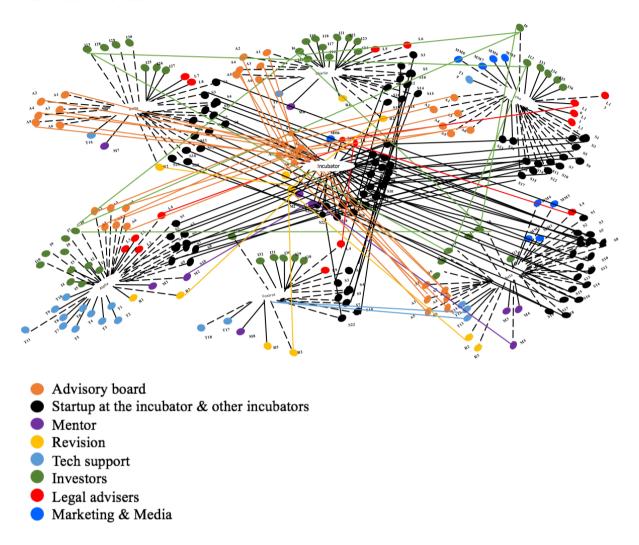


Fig 9: Map of connections between entrepreneurs and the incubator

Depending on the resource desired, the method of search differed somewhat between entrepreneurs. If the resource had to do with knowledge about the startup process or tips on how to get access to a resource all entrepreneurs said that the first thing they did was to turn to the other entrepreneurs at *the incubator*. The more experienced entrepreneurs and the manager with developed social networks were also expressed to be important influencers for the entrepreneurs to get access to resources that otherwise were hard to reach.

One clear pattern that can be seen is that the entrepreneurs that are more actively searching for connections and build social capital in the internal network are the ones that increase their personal social networks the most. Furthermore, trust has been found to be a key element to build these connections. Most of the time this is less of an issue at *the incubator* as the

proximity and informal culture encourages trust among the incubates but in the case with Delta who was paying less attention to the internal network it became clear that this is not something that every entrepreneur just gets but has to build up.

Research question 3:

How does the entrepreneurs personal social network develop during the incubation process?

Regarding the development of the personal social networks, patterns has been identified. Firstly the networks of the younger entrepreneurs networks has grown to a larger extent, in all direction, compared to that of the older entrepreneurs. This can have multiple explanations but since the older entrepreneurs had more extensive networks to begin with this was likely to be one of the key factors. Regardless of age and experience of the entrepreneur all social networks grew in multiple directions. All of the entrepreneurs have established stronger connection among one another and these ties have in turn resulted in new outside connections. Furthermore, all of the entrepreneurs share some of the connections with the partner companies of *the incubator*. Another pattern is that everyone has increased their social network of financial investors. This may be due to the nature of the startup process and the inherent need for funds, although it is likely that the incubation process did affect the development as the entrepreneurs share knowledge and contacts.

8 Concluding remarks

There has been plenty of researches that examined how resources are exchanged at incubators. However, prior researchers have had problems with their results due to mixing different types of incubators in one study and uses this to draw general conclusions on how they operate. Therefore, in this research one single incubator has been studied through qualitative interviews with entrepreneurs and a manager of *the incubator* to get a deeper understanding of how resources were exchanged at that *incubator*. *The incubator* was chosen for its major focus on internal networks as this has been shown to be the most effective way to access resources in social capital theory (Lyons 2000). Furthermore, the personal network of the entrepreneurs at *the incubator* was examined to get a deeper understanding on how resources were exchanged and developed as an effect of the incubation process.

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It has become clear during the study that *the incubator* has created a great environment for startups to learn and share knowledge and resources among one another. This is made possible by the informal culture and laissez faire approach to how *the incubator* manages the entrepreneurs. *The incubator* has consciously made the decisions to have this approach and is aware of its effects. Furthermore, the entrepreneurs emphasized that the most valuable resource shared between them were knowledge and tips regarding the startup process. This is in line with the social capital theory which highlight the importance of flow of information in an imperfect market to save both time and find out about opportunities that the entrepreneur otherwise may not be aware of (Lin 1999). *The incubator* together with the advisory board of *the incubator* worked as important credibility function allowing the entrepreneurs to access resources that otherwise might be hard for them reach.

All the entrepreneurs' personal social networks developed during their time at *the incubator* and all entrepreneurs highlighted that the internal networking between the companies was the most valuable resource at *the incubator*. This research emphasize that the older and more experienced entrepreneurs of the sample contributed with more of their resources and acted as influencer to their younger colleagues. Incubators could attempt to mix the companies up with a variety of ages, experience and industries. Especially incubators should always strive to have at least one more experienced company present as these entrepreneurs have the ability to help and influence the other entrepreneurs to a greater extent. Furthermore, the effectiveness of how resources were exchanged at *the incubator* dependent on how active the entrepreneurs were.

This implicates that an incubator focusing on internal networking is dependent on how effective social capital is leveraged at the incubator in order to access resources. Incubators has an important credibility function for the entrepreneurs to access resources from the outside. While the exchange between the entrepreneurs is important for flow of information where the entrepreneurs should differ in terms of age, experience and industry to be the most effective. Both incubator managers and the entrepreneurs is important influencers for other entrepreneurs to access resources.

9 Implications for future research

As this research only covered one single incubator it is hard to make any general conclusion on how other incubator should operate. Therefor a comparative study between a more informal and a formal incubator to compare efficiency of the systems is something that would be able to better judge the effectiveness of the laissez faire approach than just looking at the result of one incubator is recommended. The initial goal of this research was to include such a comparison but was dropped due to time concerns. The issue with such a comparison is the apparent rarity of incubator such as the one in this research. Additionally, the value of such research is potentially great as it would let the incubators consider what model might be more efficient for them.

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