LUND UNIVERSITY
School of Economics and Management

The Startup Studio: New Phenomenon or Rebranding of Existing Support?

by

Maximilian Haffen Lamm & Jack Peters

May 2019

Master's Programme in Entrepreneurship & Innovation

Supervisor: Hans Landström
Examiner: Gustav Hägg

Abstract

Research Problem - Considering the increasing trend towards startup studios in the business world, the literature does not provide much information regarding these start-up support organisations. In recent years, researchers have put their attention on accelerators, creating a broad understanding of this concept. It is important for entrepreneurs to be aware of the different support organisations available.

Research Aim - The study explored both an accelerator and a startup studio to understand what they want to achieve, how they intend to achieve it, and how they operate to realise this. Thus, to know whether startup studios are a new phenomenon or another name for already existing supports.

Methods - The study used a qualitative semi-structured interview base with one accelerator and one startup studio. In total, thirteen interviews were conducted exposing different perspectives to better understand these two structures. An analysis of four entrepreneurial methods was conducted to better distinguish their work.

Results - The results highlighted differences between the organisations, in terms of both their business models and their approach to supporting start-ups. There were similarities and differences with regards to the entrepreneurial methods promoted and utilised at each organisation, with their aims, motivations and philosophy being strong influencing factors as to why.

Implications - The startup studio studied, differed to several aspects of the literate covering accelerators. Literature on startup studios is limited, therefore, future research is recommended, especially through quantitative methods to find a generalisable result. Founders seeking start-up support should be aware of the potential differences of the two organisations. Directors and managers of these organisations should consider partnerships as profitable symbiosis is possible.

Keywords - startup studio, accelerator, start-up support organisation, entrepreneurial method

Acknowledgements

We would like to acknowledge and thank our supervisor, Hans Landström, for his support and guidance throughout the writing. Also, we would like to thank our classmates for their feedback and recommendations throughout the year.

We are most grateful for the time the participants took to help us with our study. Knowing how busy the entrepreneurial life is, we are thankful for their support and willingness to help us in our journey.

It would not have been possible to write this without the constant and tireless support of our mentors, families, and friends. Thank you.

.

Table of Contents

List of Tables

List of Figures

1 Introduction

1.1 Background

1.1.1 Accelerator

Y-Combinator was the first accelerator started by angel investor Paul Graham (Cohen, 2013). As they were young, inexperienced and from the same area, Graham batched the young start-ups in which he invested by providing mentorship (Cohen, 2013). The operation was a success both financially and in terms of learning outcomes (Cohen, 2013). Reflecting on the process as a key factor in the success of the investments, Graham founded Y-Combinator with a structure based on this initial success; batching a cohort of young ventures, providing intensive mentorship, learnings and networking to the group during a three months intensive period (Cohen, 2013).

Since the inception of Y-combinator in 2005, numerous accelerators have come into existence (Hallen, Cohen & Bingham, 2017; Miller & Bound, 2011). Market forces have created conditions favourable for the existence of accelerators (Radojevich-Kelley & Hoffman, 2012). The dot-com crash saw a dramatic reduction in the availability of venture capitalist money, and produced a shift in venture capitalists focus to the reduced risk of later stage companies (Radojevich-Kelley & Hoffman, 2012). This left angels to fill the funding gap and invest at the pre seed stage (Radojevich-Kelley & Hoffman, 2012).

As the phenomenon took off accelerators began to differentiate into different industry verticals such as clean-tech, bio-tech and ed-tech (Cohen & Hochberg, 2014). A good example is one of Europe's leading accelerators, Accelerace, which has different accelerator tracks for different industry verticals, and offers different programme directors and mentor networks for each of these tracks. Accelerators also became diverse in their applicant restrictions such as restricting programmes to certain communities such as university affiliated, women or minority led start-ups (Cohen & Hochberg, 2014). Furthermore corporate accelerators may restrict applications to those start-ups which are related to the corporates key services (Cohen & Hochberg, 2014).

EON Agile, for instance, focuses on energy, cleantech and sustainability start-ups (Cohen & Hochberg, 2014).

An accelerator is, to some degree, similar to an incubator and a business angel (Cohen & Hochberg, 2014). Accelerators offer co-working space in addition to a mentorship programme and administrative support, typical of the traditional incubator (Pauwels et al., 2016; Cohen & Hochberg, 2014). Often entrepreneurial methods are taught and promoted at such organisations, including design thinking, lean startup, effectuation and business planning (Seet et al., 2018). Furthermore, accelerators provide seed-funding in return of equity to new ventures participating in their programmes, constituting the financial aspect provided by business angels (Cohen & Hochberg, 2014). Eventually, the programme takes place over a short period of time, usually three months, ending with a commonly named Demo Day (Cohen, 2013). The Demo Day is a dedicated day where ventures present their ideas in front of an audience, mostly composed of potential investors (Cohen, 2013). Among researchers, accelerators are commonly defined according to Cohen & Hochberg's (2014) formal definition (Fehder & Hochberg, 2014; Pauwels et al., 2016; Yin & Luo, 2018). As defined by Cohen & Hochberg (2014, p.4) an accelerator is "A *fixed-term*, *cohort-based* programme, including *mentorship and educational components*, that culminates in a public pitch event or *demo-day*".

1.1.2 Startup Studio

A more recent trend involves a seemingly alternative structure introduced by certain pioneering support organisations. These support organisations named as startup studios, have similarities to accelerators but also key differences. TechStars, an accelerator programme born in 2007, has recently created their startup studio, TechStars Studio, running in parallel with their accelerator business model. Parallels with the accelerators include mentorship, funding and network development (Baumann et al., 2018). Workflow, operations and intentions are different for these startup studios though. Instead of accepting start-ups with a fixed business idea to be accelerated, startup studios foster a creative environment (Baumann et al., 2018). Dynamic, and functionally diverse teams from the startup studio rapidly test and iterate ideas, with an entrepreneur or internally, before creating a minimal viable product and assembling a team to take it to market (Baumann et al., 2018). Evidently, the start-up gives up more equity than for traditional accelerators (Baumann et al., 2018).

1.2 Research Purpose

Startup studios are an increasing trend, as highlighted by popular media such as Medium, TechCrunch and Entrepreneur, and confirmed by accelerators such as TechStars which created their startup studio in parallel of their accelerator programme. Within the literature on support organisations there is lack of consensus with regards to certain terminology and the differences of support system organisations and there is limited research on startup studios (Cohen & Hochberg, 2014; Pauwels et al., 2016; Kreusel, Roth & Brem, 2018). The established support infrastructure of the accelerator seems to draw the most parallels to startup studios, however despite these similarities, TechStars runs both a startup studio and accelerator programme in parallel, suggesting sufficient differences to make this a credible business case.

The purpose of this research is to understand the characteristics of startup studios to determine if they are a new phenomenon or simply a rebranding of existing support. In particular, both a startup studio and an accelerator are explored to find the similarities and differences within these support organisations in terms of what they want to achieve, how they intend to achieve it and how they operate to realise this.

To facilitate this exploration, the entrepreneurial methods promoted by and used within the organisations are investigated and compared. Such methods include design thinking, lean startup, effectuation and business planning (Mansoori, 2017).

The exploratory research will consist primarily of semi structured interviews with strategic individuals of such organisations. In addition to bringing further clarity to research on startup studios, the outcome is to explore how entrepreneurial methods are promoted and utilised in both structures.

1.3 Outline of Study

This study is divided into five distinct sections. To begin with, a review on accelerators and startup studios definitions is conducted. Following this, the research outlines the various frameworks potentially applicable for the study before eventually explaining the more appropriate for the research. Consecutively, chapter 3 goes through the methodology used for this study, the research approach, design, data collection and finally analysis set in regards of

the cases. Being a new trend with a lack of research in the matter, a case study semi-structured interview based approach describes its specificities and characteristics in comparison with the accelerator, support organisation available for new ventures. Conducting interviews provides in-depth data crucial for a new topic such as the one presented in this study. Chapter 4 presents the findings of the study. Then, chapter 5 discusses the research aims and objectives, and implications. Finally, chapter 6 summarises key findings resulting from this study as well as its limitations. Being a new area of research, the findings from this paper encourage, among others, further research with a larger set of data which could be provided by using a quantitative study in order to confirm or construct upon the outcomes of this research.

2 Literature Review

Accelerators and startup studios have specific attributes distinguishing them from other start-up support organisations. In this section, an outline of these characteristics for both organisations is presented. Furthermore, entrepreneurial methods are described and explored before selecting those used as a vehicle for exploration.

2.1 Definitions

As defined by Cohen (2013), accelerator programmes are held over a limited period, emphasizing on mentorship and networking events for the enrolled cohort. Eventually, it ends with a Demo Day where the participants present the progress and ideas in front of various actors. To better understand the attributes of accelerators and startup studios in the context of literature, certain characteristics of both structures are hereby explored.

2.1.1 Accelerators

Duration

Accelerators differ from incubator or business angels in various ways. Primarily this difference comes by offering a time-limited programme (Cohen & Hochberg, 2014). The duration varies among accelerator structures and researches. Some programmes take place over a period of three months where intensive mentorship and network in parallel with thorough workshops and meetings are held (Cohen & Hochberg, 2014; Hallen, Cohen & Bingham, 2017; Cohen, 2013). Studies on other accelerators show that these programmes take place over longer periods, usually between three to six months allowing more time for mentoring and learning (Pauwels et al., 2016; Bruton et al., 2015; Fehder & Hochberg, 2014). By undertaking this process in a compressed time frame, accelerators create an environment favourable for rapid progress, outcomes being positive or negative (Miller & Bound, 2011; Cohen & Hochberg, 2014).

Selection

New ventures enter accelerator programmes in groups or batches, also called cohorts (Cohen, 2013; Cohen & Hochberg, 2014). The selection phase usually takes place under three rounds and are done rapidly (Miller & Bound, 2011). First, an initial open application is called where teams can apply for a certain cohort (Hallen, Cohen & Bingham, 2017). Others purposefully look after promising teams in various contexts (Pauwels et al., 2016). Second, interviews and face-to-face meetings are set to better select the participants (Hallen, Cohen & Bingham, 2017). Finally the selection is made, with acceptance rates less than 1% for top accelerator programmes (Miller & Bound, 2011) to 6% for average accelerators (Yin & Luo, 2018).

Interestingly, empirical studies made on accelerators reveals that only accelerators with a track record composed of successful exists and impressive mentor network veritably accelerate start-ups (Hallen, Cohen & Bingham, 2017; Smith & Hannigan, 2015).

Finance

Accelerators strive for profit (Cohen, 2013) or non-profit outcomes (Cohen & Hochberg, 2014). The programmes are often financed by investors (e.g. venture capitalists, business angels), corporations or governments (Clarysse, Wright & Van Hove, 2016; Miller & Bound, 2011). The private actors usually invest in an accelerator fund which provides the capital for the start-up seed investments, with part of the investment attributed to managing the accelerator (Miller & Bound, 2011). Typical investment provided to the ventures varies among studies but on average lies between $15,000 and $23,000 (Clarysse, Wright & Van Hove, 2016; Cohen & Hochberg, 2014). By financing these start-ups, accelerators take shares or convertible notes giving access to certain benefits (Clarysse, Wright & Van Hove, 2016; Hochberg, 2016). In return, equity is given, from 5 to 7% (Hochberg, 2016; Yin & Luo, 2018), up to 10% according to some accelerators (Cohen, 2013; Miller & Bound, 2011; Smith & Hannigan, 2015). In return, teams benefit from it by being visible by potential investors (Smith & Hannigan, 2015; Fraser, Bhaumik & Wright, 2015; Hochberg, 2016), an undeniable benefit for first time entrepreneurs dealing with liabilities of newness (Miller & Bound, 2011; Bruderl & Schussler, 1990; Kale & Arditi, 1998). According to Hallen, Cohen and Bingham (2017), accelerated ventures increased the likelihood of raising venture capital investments by 100% to 200%.

Still, researchers suggest entrepreneurs to carefully select their accelerator programmes, taking into consideration the proposed outcomes and the individual experiences (Haines, 2014; Hallen,

Cohen & Bingham, 2017). Novice accelerators with small or no track record might involuntarily misguide new ventures (Hallen, Cohen & Bingham, 2017; Clarysse, Wright & Van Hove, 2016).

Mentorship & Networks

Networking events, seminars, and mentor meetings figure as key aspects of accelerator programmes (Valliere, Gedeon & Wise, 2014; Cohen & Hochberg, 2014; Cohen, 2013). Mentors are accessible during the limited time period of the accelerator and often teams can meet up to seventy-five mentors in the first month (Cohen, 2013; Cohen & Hochberg, 2014). Accelerator directors have direct impact on the quality of the learning because of their experience and mentorship (Cohen, 2013). During Demo Day start-ups are exposed to a panel of investors, legal representatives and medias enabling further exposure to market actors (Miller & Bound, 2011; Hallen, Cohen & Bingham, 2017; Cohen & Hochberg, 2014). Finally, the alumni network further helps participants by increasing the range of contacts and exhibition (Pauwels et al., 2016; Clarysse, Wright & Van Hove, 2016).

Not all accelerators are created equal, and those which provide access to a more relevant network and stronger ecosystem can be more beneficial for participants (Radojevich-Kelley & Hoffman, 2012).

A benefit of the cohort system is the bonds which form between teams and the associated help they provide one another in areas such as investor pitches and technical issues. (Cohen & Hochberg, 2014; Mason & Brown, 2014; Miller & Bound, 2011). Through qualitative fieldwork, researchers came to the conclusion that entrepreneurs learn “what to do” and “how to do” during accelerator programmes in regards of their business model and strategies (Hallen, Cohen & Bingham, 2017). Furthermore, the learning is further enhanced by certain accelerators by scheduling seminars on topics such as marketing, business and product development (Valliere, Gedeon & Wise, 2014).

In summary, accelerators have specific criteria of selection for their batches and their programmes generally last for less than a year. Also, they boost the start-ups finances and network, reduce the liabilities of newness and through mentorship and coaching provide entrepreneurial learning opportunities.

2.1.2 Startup Studios

In recent years a number of startup studios, also referred to as 'company builders' and 'start-up factories' have emerged (Kreusel, Roth & Brem, 2018; Baumann et al., 2018). These organisations build companies often with the intention that they will be acquired at a later stage (Baumann et al., 2018). The popularity of these types of organisation is increasing, with the growing trend for start-ups being acquired, with many such exits being very lucrative (Baumann et al., 2018).

Similar but Different

These organisations can appear similar to accelerators due to analogies. For instance they take equity positions in portfolio companies, and provide value added services including mentorship and networking (Baumann et al., 2018). However a closer inspection reveals distinct differences as these organisations differ from accelerators in their setup and workflow (Baumann et al., 2018; Kreusel, Roth & Brem, 2018).

The startup studios tend to be made up of teams with diverse functionality which actively work with an entrepreneur to build products and a business (Baumann et al., 2018). As a result of the higher level of participation of the startup studio, effectively and additional cofounder, they tend to take a higher equity position than accelerators (Baumann et al., 2018). Ideas are generated from within the startup studios as well as obtained externally and the startup studios actively recruit new team members to founding teams (Baumann et al., 2018).

Example of a Startup Studio: Rocket Internet

Drawing the example illustrated by Baumann et al. (2018), Rocket Internet is one of first and most well-known startup studios. Rocket Internet both takes in external entrepreneurs with business ideas and also copies existing business ideas applying them to new or underserved markets. The firm takes advantage of standardised processes which are available for all portfolio companies, therefore allowing them, in theory, to setup and execute faster and with less risk than a team of independent entrepreneurs (Baumann et al., 2018). Startup studios are well place to capitalise on the enhanced opportunity recognition capabilities which arise from prior start-up experience (Politis, 2005). However interestingly Rocket Studio's core competence is execution, and outsources ideation by attracting external entrepreneurs or copying existing business models and applying them to new markets (Baumann et al., 2018).

Rocket Internet has been controversially aggressive in this approach, even creating similar web pages and branding to existing start-ups.

Mindset and intentions of startup studio and accelerators seems to differ. Accelerators have been criticised that they will not produce the next Facebook or Google as they are more interested in churning out smaller companies which can be acquired in a trade sale (Miller & Bound, 2011). Startup studios seem to have a more vested interest in growing a scalable business over a lengthier period of time as they are actively involved in building the company and hold a larger equity position (Kreusel, Roth & Brem, 2018). Despite a seemingly growing trend and many references in popular magazines, there is limited research on the startup studio (Kreusel, Roth & Brem, 2018).

2.2 Entrepreneurial Methods

Entrepreneurial learnings is a key focus of accelerator programmes (Seet et al., 2018). Traditionally entrepreneurial education has been based around business planning, however contemporary methods focus on design thinking, lean startup methodology and the business model canvas (Seet et al., 2018). These three contemporary concepts are often simultaneously applied during accelerator programmes (Seet et al., 2018). Another key element of accelerator programmes is network building with the mentorship pool. This impacts effectuation where relationship building is central to the methodology (Sarasvathy, 2001).

Mansoori (2017) details popular entrepreneurial methods used in the entrepreneurial process. These methods provide a useful vehicle to compare accelerators and startup studios; comparing how they are promoted and utilised. Due to the relevance to the study, the literature on the entrepreneurial methods of design thinking, lean startup, business planning and effectuation is explored further.

Design Thinking

Design thinking is a problem solving methodology which is well suited to foster innovation and growth in organisations (Liedtka, 2015). The philosophy of design thinking encompasses a process and a toolkit to aid the execution of the process (Liedtka, 2015; Carlgren, Rauth & Elmquist, 2016). Liedtka (2015) reviewed the organisations leading the space on design thinking and found that although their definitions differ, their process follows the same three

phases of exploration, idea generation and experimentation. Exploration based on deep user research, followed by the generation of multiple ideas and then prototyping and experimentation which leads to a selection and evolution of the best ideas (Liedtka, 2015; Mansoori, 2017). Figure 1 details a summary of the leading organisations' approach to design thinking. Brown and Katz (2011) emphasises the importance of customer empathy in this process, opposed to analysing customer data. Customer observations and interactions are translated into "insights and insights into products and services" which will solve their needs (Brown & Katz, 2011, p. 382).

Table 1. Models of Design-thinking Process in Practice

Stage	IDEO	Continuum	Stanford Design School	Rotman Business School	Darden Business School
Stage I data gathering about user needs	Discovery and interpretation	Discover deep insights	Empathize and define	Empathy	What is?
Stage II idea generation	Ideation	Create	Ideation	Ideation	What if?
Stage III testing	Experimentation and evolution	Make it real: prototype, test, and deploy	Prototype and test	Prototyping and experimentation	What wows? What works?

Figure 1 A copy of the table comparing the definitions of design thinking by organisations leading the space Liedtka (2015, p.928)

Throughout the stages of the design thinking process there are a number of tools which can be utilised. The main tools are listed in Table 1 below (Liedtka, 2015).

Table 1 Tools for design thinking processes. Adapted from Liedtka (2015)

Design Thinking Tool	Description
Visualisation	The use of imagery to visualise a narrative
Ethnography	Qualitative research methods utilised to develop deep user understanding via observation and interactions in their natural habitat
Structured Collaborative Sense Making	Techniques such as 'mind mapping' which facilitate team based insights
Assumption Surfacing	Identify assumptions with regards to value creation, execution, scalability, underlying the potential of a new idea

Prototyping	Making abstract ideas tangible
Co-creation	Engaging users in generating, developing and testing new ideas
Field Experiments	Designed to test value-generating assumptions and hypothesis

Liedtka (2015) highlights that the testing stage has similarities with the lean startup methodology (Ries, 2011), however design thinking encourages one to run deeper experiments than the lean startup. The lean startup focuses on creating the most minimalistic version of the product possible to test user engagement before building the product, including testing consumer interaction with products which are not yet in existence (Ries, 2011). Design thinking on the other hand encourages one to proceed beyond prototyping and conduct field experiments with a heavy focus on user engagement, observations and learnings (Schrage, 1999).

Lean Startup

Following the lean manufacturing movement and adding to Blank's (2006) work, the lean startup has become a common methodology used in start-up communities worldwide (Ries, 2011). Build, measure, learn is the mantra of the lean startup, which advocates building the most minimalistic version of a product possible, observing user engagement and drawing learnings to input back into the product build and direction (Ries, 2011; Haines, 2014). One should iterate within the loop until product-market fit is achieved, following which one can focus on building and growing the organisation. A number of tactics are advised to facilitate the methodology, such as interviewing customers, utilising physical prototypes, A/B testing and fake door tests (Ries, 2011). Running such tests, draws parallels with design thinking prototyping and experimentation, however the lean method emphasises strongly that such prototypes should be as minimalistic as possible, often encouraging the entrepreneur to capture insights in a way which does not provide value to the potential customer (Haines, 2014; Ries, 2011). This differs to the experimentation phase of design thinking which encourages the delivery of value and learnings from engagement (Liedtka, 2015).

Effectuation

Entrepreneurs that leverage an effectual mindset are not bound by the destination which they are aiming to reach; instead they create in an iterative social process where the input from their growing network and associated resources will stimulate the evolution of end goals (Sarasvathy & Dew, 2005). Sarasvathy (2001) described how expert entrepreneurs reflect on who they are, what they know and who they know before choosing to take action. This action will also be influenced by their risk appetite and locus of control over future events. Actions taken will secure further resources, partnerships and means which will become an input into the decision for the next actions.

Business Planning

A business plan is a document used to detail and communicate a firm's strategy. This includes a description of the firm's current and future state (Honig, 2004). To facilitate this a company details a mission statement and objectives with goals required to realise these (Draman, 1995). Resources required to achieve these goals are identified and a strategy to acquire and allocate them detailed (Draman, 1995). Internal functions and activities of the firm will be detailed such as market objectives, management teams, financial plans and schedules (Boyd, 1991). External influences, such as those from suppliers, partners and customers, must be addressed. The business plan, brings these factors together to detail how a problem will be solved (Ackoff, 1981). Typically the document is live and must be edited as the firm grows and adapts to its surroundings. Taking account for this, often business plans detail how performance will be evaluated once a strategy has been implemented and suggest how corrective adjustments should be initiated (Draman, 1995). Delmar and Shane (2003) argue that business planning reduces the likelihood a venture will disband and even helps to accelerate their formation activities.

2.3 Entrepreneurial Methods in the Context of Research

Entrepreneurial methods can be used as a vehicle to compare accelerators and startup studios, by exploring how the promotion and utilisation of these methods differ between the organisations. Justifications for the selected methods are detailed below.

Design Thinking

Design thinking is one of the key methodologies covered in contemporary entrepreneurial education, including that covered in accelerator programmes (Seet et al., 2018). Seet et al. (2018) highlight that design thinking provides a basis for elements of the lean startup approach (LSA) and business planning. Figure 2 highlights this, with business planning represented by analytical thinking.

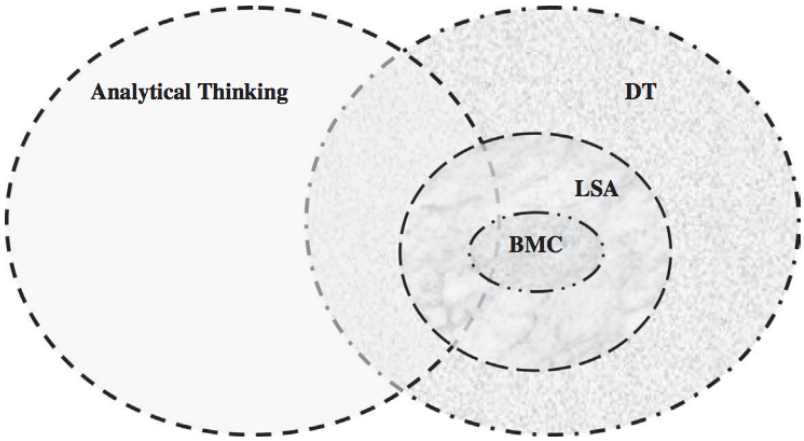

Figure 1. Relationship of contemporary content.

Figure 2 Interaction between business model canvas, lean startup approach, and design thinking (Seet et al., 2018, p.241)

The research will explore the promotion, teachings and use of design thinking at the accelerator and startup studio, aiming to gather insights on whether the three stages of exploration, idea generation and experimentation are covered and actioned upon (Liedtka, 2015).

Lean Startup

Accelerator programmes encourage the utilisation of the lean startup methodology (Seet et al., 2018). Stayton and Mangematin (2016) describe how early stage ventures divide their time between product development and organisational development. They advise that using the lean startup methodology, the nascent venture should not focus on organisational development until the product is about to enter the market. This allows the nascent venture to operate in the lean manner with the initial user understanding and product development activities without organisational boundaries getting in the way. When a product is ready to go to market the

organisation needs to be in place to prevent chaos which may ensue without it. The research will explore the approach to lean methodologies with regards to product and organisation development, noting if there are any significant differences between the startup studios and accelerators approach.

Effectuation

Effectuation is also chosen as a relevant method to incorporate into the research. The other methods cover the 'know how' and 'know what', whereas effectuation is a method that relies heavily on 'know who' (Seet et al., 2018). With a strong focus of accelerator programmes on the mentor network, accelerators aim to enhance the social networking which is essential for effectuation (Bonk Sarmento, Carvalho & da Rocha Dib, 2016; Seet et al., 2018; Goswami, Mitchell & Bhagavatula, 2018). Thus insights into how effectuation is enhanced/ hindered by these support organisations, may be obtained. To facilitate this the following will be explored; how the network provided by the support organisations contribute to changing the means of the nascent venture and the impact this has on the ventures goals.

Business Planning

Traditional entrepreneurial education focused heavily on the analytical research process of business planning (Seet et al., 2018). It can be argued that the research required can be a restrictive time constraint for the entrepreneur in the early phase of a venture, where progress could be enhanced through the iterative learning processes of design thinking and the lean startup (Seet et al., 2018). The importance given to planning alongside execution will be explored.

3 Methodology

The study seeks to understand whether startup studios are an additional support organisation available for entrepreneurs, rather than a rebranding of existing support. Attributes of the accelerator and startup studio will be outlined. Given the absence of literature in that respect, and for the various reasons mentioned in this chapter, an exploratory study is undertaken to better explore the emergence of this alternative structure (Creswell, 2014). With regards to the startup studio and accelerator comparison it is noted that prior researchers used exploratory studies to better understand how accelerators support entrepreneurs and start-ups in various domains (Radojevich-Kelley & Hoffman, 2012; Cohen, 2013). However other researchers utilised both exploratory and explanatory methods to analyse accelerators and enrich its database (Hallen, Cohen & Bingham, 2017; Smith & Hannigan, 2016; Hochberg, 2016). The researchers acknowledge that an explanatory study would have provided more generalisable concepts, applicable for other contexts than the one presented in this study (Creswell, 2014). Nevertheless, an exploratory study with a purposive sampling method was best suited to initiate emerging discoveries in regards of startup studios on which future researchers can confirm or build upon.

3.1 Research Design

For this paper a multiple case research methodology was undertaken to explore a general understanding of accelerators and startup studios in their particular contexts (Stake, 1995). Considering the new trend of startup studios and the general lack of research in its field, exploring with a general perspective of both organisations, in their context, seemed the finest decision. According to Creswell (2007), to understand the research concern, one should explore multiple cases to expose numerous opinions. Furthermore, considering the relatively under researched topic, the researchers are confident it was the appropriate methodology to apply (Leonard-Barton, 1990).

Examining how a startup studio differs from an accelerator, by focusing on two distinct cases, and how they execute entrepreneurial methods, the researchers decided to run semi-structured interviews. These interviews were conducted with relevant and various individuals for both cases resulting in a broader understanding and perspective (Creswell, 2007). To complement the findings, archival data was gathered. The first interviews were conducted to collect and understand general key information and attributes from the cases (Creswell, 2014). Then, once the researchers understood the context, they decided to dig deeper by conducting more precise semi-structured interviews and interviewing sometimes the same individuals more than once. By doing so, they were able to confirm prior findings and undiscovered information of the first meetings.

3.2 Sample Selection

For this study, the researchers decided to focus on an accelerator and a startup studio in the south of Sweden. The reason for this choice was based on its practicality. The researchers leveraged a personal contact with a co-founder of the startup studio for the initial introductions. The sampling of the participants followed a purposive approach. The researchers looked to expose a wide range of perspectives by broadening the understanding of their participants (Bryman & Bell, 2011). By choosing this type of sampling method, they were aware of the non-generalisability of their results however, considering the purpose of this research, they concluded that it was the optimal way to contribute to the research aim, given its magnitude.

Participants of both organisations were strategically selected after having interviewed co-founders and managers of both the accelerator and startup studio. These participants were often referred to in conversations and therefore selected. Interestingly, one participant went through both organisations giving more depth to the findings.

An introductory email was sent to participants to explain the context of the study before scheduling a date for the interview. Occasionally, a few email conversations followed before agreeing for a meeting.

Interviews were conducted face-to-face, by Skype, by phone call or on particular video conference websites.

This process resulted in thirteen interviews with twelve different individuals. The interviewees varied from co-founders, managers, employees, participants, and external individuals of both cases. Hence, the researchers are confident that it permitted them to source more in-depth focus on their case study.

Table 2 Overview of the sample

Participant, title and company	Fast Track Malmö	Djäkne Startup Studio
Joël, CEO Fast Track	X	
Johan, Partner Djäkne		X
Lars, Co-founder Djäkne		X
Marvin, Co-founder Djäkne		X
Ben, Barista Djäkne		X
Daan, CEO BookBoost	X	
Heidi, Head of Fast Track	X	
Dzenis, Project manager Fast Track	X	
Anders, CEO Twiik	X	X
Mats, CTO StudyBee	X	X
Jeanette, CEO Minc	X	
Sören, CEO United Robots		X

Even though the two cases were, among other criteria, selected based on the geographical proximity, the study used selection criteria based on previous studies conducted in the same field.

On one hand, the selection of the accelerator was based upon Miller and Bound's (2011) model which, in practicality, was used by other researchers such as Pauwels et al. (2016). Their model consisted in selecting accelerators with the following characteristics: (1): an initial investment ranging from EUR 10,000 to EUR 50,000 in return of equity; (2) limited time-frame in addition to mentorship and events; (3) a recruitment based on teams rather than individuals; (4) a highly

competitive application process but open for all; and finally, (5) participants accepted in small cohorts or batches. However, for the case chosen in this paper, the equity could not be measured. Indeed, the case chosen used convertible notes making in difficult to precisely know if the equity was in the range proposed by Miller and Bound (2011).

On the other hand, the researchers partially adapted the startup studio's selection based on Kreusel, Roth and Brem's (2018) selection criteria. Therefore the selected startup studio had to have the following attributes: (1) mentoring, networking events, shared office space or similar, know-how and credibility; (2) the ownership should be private or corporate; (3) for-profit orientation; (4) start-ups in the (pre)-seed stage; and finally, (5) located their main offices in the south of Sweden.

3.3 Data Collection Method

The study conducted semi-structured interviews via Skype, phone, video conferences or face-to-face meetings between April and May 2019. The interviews were the primary and main source of data which were combined with secondary data - or archival data - from documents given by the interviewee (such as PDF presentations) or by external sources (e.g. YouTube, LinkedIn, newspaper articles, growth letters, books in the facilities) to complement the results and deepen the knowledge (Bryman & Bell, 2011; Creswell, 2007). The use of semi-structured interviews helped as a general guidance for the discussion. However, as mentioned by Bryman and Bell (2011, p. 467), "the interviewee has a great way of leeway in how to reply". Finally, the semi-structured interviews were adapted to match the circumstances (Bryman & Bell, 2011).

Before starting the interview, one participant required a basic template with general questions which could be answered prior the interview to spare time (Appendix A). Then, the researchers introduced the meeting with asking if participants had any questions prior the meeting as well as if the researchers had their consent to record. First, the researchers built rapport with the interviewees discussing general information such as their background. Second the characteristics of the organisation were explored, asking questions related to their operations, business model, or programmes. Finally, typical questions related to entrepreneurial methods were used as a guidance. Also, the researchers often looked for practical examples and therefore

guided the participant towards those directions (Appendix B&C). Nevertheless, the interviewees felt free to express themselves.

In order to reduce biases from a case study the researchers interviewed a variety of actors related to those organisations to increase the understanding of their attributes (Leonard-Barton, 1990). Throughout the study the same individuals were, sometimes, interviewed at several occasions. According to Lee, Mitchell and Sablynski (1999), interactions spreading over a longer period of time increases the likelihood to reduce *obtrusiveness* between the interviewer and interviewee. The researchers trust this enabled them to increase the relevance of their findings.

The interviews were recorded as following: while one individual was leading the interview, the other was taking field notes in addition to the audiotaping as suggested by Creswell (2014). The interviews lasted between 25 and 120 minutes and were conducted in English. Finally, integral transcriptions were made from the recordings resulting in 179 pages of transcripts. Taking field notes, recording and transcribing the interviews allowed the researchers to accurately analyse the information by having the possibility to repeat it (Bryman & Bell, 2011). Lastly, by doing so, the researchers ensure an increase probability of a qualitative validity on their study (Bryman & Bell, 2011).

Pretesting

Before conducting initial semi-structured interviews the researchers decided to expose an interview-guide draft to an experienced researcher. By doing so, they increased the probability to hear the interviewee's own point of view leading towards resourceful answers (Bryman & Bell, 2011).

3.4 Data Analysis

Conducting multiple case studies implied an abundance of information (Creswell, 2014). For this study, the researchers initially looked for a use of a combination of both emerging and predetermined codes (Creswell, 2014; Creswell, 2013). The predetermined codes were associated with the four different entrepreneurial methods in addition to the general information the researchers could gather in regards of the structures themselves. In addition to those five themes, the researchers were open for additional themes which would emerge from the coding process. However, they were not able to extract a significantly different theme which was not

associated with ones already mentioned. Nevertheless, the researchers acknowledged the rather intertwined use of those methods in practicality which, in literature, was more dissociated.

Within the different approaches and steps commonly used in qualitative studies, and according to Creswell (2014, p.246) "(a) the first is the more general procedure in analysing the data, and (b) the second would be the analysis steps embedded within specific qualitative designs". Overall, preliminary notes were taken during the interview and audio recordings were made. Both researchers thereafter listened to the audio recordings, took additional notes before starting transcribing the interview. The audio recordings were manually transcribed and coded using theme regrouping (Creswell, 2014; Creswell, 2007). Both researchers went through all interview transcripts to control the accuracy of the coding and ensure more reliability with the results (Bryman & Bell, 2011).

3.5 Validity and Reliability

Validity

Throughout the data collection and analysis, the researchers were careful in taking field notes, recording and transcribing the interviews on a regular basis. By doing so, they accurately analysed the information by having the possibility to revisit it (Bryman & Bell, 2011). Hence, the researchers ensure an increase probability of a qualitative validity on their study (Bryman & Bell, 2011).

Reliability

To increase the reliability of the paper, the researchers systematically and carefully transcribed the interviews by using the audiotape they took while conducting the interview. In addition, while coding them, both researchers decided to separately analyse each interview before meeting to discuss and agree upon the outcomes. The information and coding were constantly compared to ensure a match throughout the research.

3.6 Delimitations

The study is limited to an in-depth analysis of one accelerator and one startup studio in Sweden. The reason for this decision is because this paper seeks for qualitative information in regards of two different support structures provided to start-ups. Several interviews are conducted with different individuals in both structures to reveal as much in-depth information as possible to better outline both organisations.

4 Results Description and Analysis

This chapter presents the results from, the transcribed and coded interviews and secondary data. Results related to the characteristics are first presented followed by those relating to the entrepreneurial methods. Following the results detailed in each subchapter, an analysis is performed to highlight similarities and differences of the organisations, with regards to characteristics and the entrepreneurial methods.

4.1 Characteristics of the Accelerator and Startup Studio

4.1.1 Overview of Cases' Characteristics

Table 3 Summary of the characteristics of the two cases, namely the accelerator and the startup studio. Adapted from Cohen (2013)

Attribute	Fast Track Malmö	Djäkne Startup studio
Duration	4 months	No fixed duration
Cohort	Yes (annual)	No (Year round application)
Business model	Investment oriented	Growth, Win-win deal
Venture stage	Early	Early or internally generated
Venture location	On/off site	On/off site
Education	Themes	Educate by doing
Mentorship	Partially	Partially
Investment	$50,000.00	Up to $525,000.00
Equity	Convertible note	25-35%

Programme	Fixed	None

4.1.2 Specific Characteristics of the Accelerator

Programme

Fast Track holds weekly twenty minute meetings between investors and start-ups and they gather around one hundred investors for their Demo Day. Participants stressed the benefit of the regional focus of Fast Track's investor network.

Weekly workshops cover a variety of themes such as marketing, data research, product market fit, and are often conducted by experienced entrepreneurs from the region. These themes are part of a fixed programme designed to aid the start-ups on the path to growing a scalable VC fundable company. For specific support weekly meetings are available with the managers Joël and Heidi or an entrepreneur in residence, Nino.

Internal Characteristics

Fast Track's current fund is made from 47 local investors. This fund is invested across several Fast Track cohorts, in the form of convertible notes with a typical cap of $2-3 million. Fast Track is part of the start-up house Minc, which funds 50 % of Fast Track's costs. For this reason neither Fast Track or its employees are invested in their fund, however they do take a management fee. The management fee and income from corporate partnerships covers the remaining 50% of their costs. The staff at Fast Track report to the CEO of Minc, who sets Fast Track's KPIs, notably, 80% of graduates receiving follow on funding.

4.1.3 Specific Characteristics of the Startup Studio

Organisational Structure

Djäkne is composed of founders, partners and employees. Djäkne's partner team includes fifteen to twenty people, where 80% are developers and 20% have strategic or executive roles. These partners actively help the companies in which Djäkne invest in or grow internally.

Investing In and Creating Start-ups

Djäkne grows start-ups internally and invests in promising start-ups, describing their role as a cofounder. Their main value add, other than finance, is technical support from their in house development team and strategic support from their entrepreneurial team. When making a deal the number of development and entrepreneurial team hours are negotiated along with the investment made and equity stake. Djäkne's partner Lars explained they typically takes an equity position of 25-35% and although hours are negotiated they prefer milestones to create a win-win scenario. Typically milestones include, developing a product, and help onboarding a second customer. The purpose of these milestones is to aid the start-up enroot to self-sufficiency.

Creating a start-up internally, Djäkne onboards external parties from its network to form and run the company. United Robots is a good example. One of Djäkne's portfolio companies was providing services to MittMedia (Appendix D) and through this relationship an idea for a new product offering arose. Djäkne developed a prototype internally, and held talks with MittMedia. Once a contract was agreed for the product build, Djäkne formed a company to execute the work; United Robots, bringing Sören and MittMedia onboard as co-founders.

Pool of Resources

Start-ups can benefit from Djäkne's pool of resources which includes an accountancy, entrepreneurial and developer team. Following initial consultancy hours/ agreed milestones a start-up can purchase more. Djäkne prides itself at providing great talent at competitive prices.

Due to this, the convenience and the aligned interest of both parties, it seems most teams at Djäkne opt to utilise their development services, with two interviewed start-ups having Djäkne developers on their team full time. Members of the entrepreneurial team also took significant roles in the companies interviewed. Djäkne partner Johan works 50% of his time for StudyBee in a Deputy CEO role helping with strategy. In United Robots case, Djäkne partner Marvin works two days per week opening up the Dutch market for them.

The accountancy team support, and the pre-existing relationships with Djäkne suppliers, can reduce administrative burden. Sören expressed how this had been of great value for them during their formation as they were able to focus on their core business.

Revenue Streams

Djäkne generates revenue from its coffee bar, coworking space, internal and external consultancy hours and via exiting ventures.

Consultancy Hours Internal & External

Djäkne has an internal development team of fifteen, that can be assigned to internal and external projects. External projects include development work for corporates, charged at high margins. Djäkne stressed that external consultancy only took place if there was a strategic benefit to the portfolio companies and advised that it made up about 10% of their development income. Consulting for the corporates keeps Djäkne close to markets, trends and boosts their network.

Internal consulting hours for portfolio start-ups is Djäkne's main revenue stream. They operate at low margins to stay competitive and enhance the chance of the start-ups success. Lars explained the service enables them to earn back the money they invested for equity. This allows them to pay their developers salaries and cover Djäkne's costs whilst growing their current ventures. They operate like this with the goal of releasing a large upside when the venture is sold.

Venture Exits

Exiting a venture is important for Djäkne as the intention is to capture a large sum of capital to be reinvested into upcoming portfolio companies. Large sums of capital from exits maintains the business model of investing in companies and earning capital back with consultancy hours at low margins. A major exits from a previous company Mobenga enabled the founders to deploy the current business model. Despite being critical to long term success they typically do not have exit strategies. Their philosophy is to focus on creating valuable and sustainable businesses, which they believe in turn will lead to exit opportunities.

Djäkne Funds

The founding team own Djäkne, and partners have ownership of Djäkne funds which are invested across Djäkne's start-up portfolio. Djäkne owns 51% of the fund and the remaining 49% is divided amongst the partners, each receiving between 2-4% (Lars Widmark, email conversation, 24 April 2019). Partners receive this equity as part of their employment package. When a new partner joins them, they will receive ownership in upcoming funds.

Djäkne also takes external investment in specific portfolio companies, for example United Robots joined an accelerator programme where it will receive further funding. Djäkne also co-invested in specific start-ups from the outset; partnering with Almi and MittMedia previously.

External Participants' Selection

Djäkne does not value market forecasts as found in traditional business planning, however a start-up with one or two paying customers creates interest, particularly if it is business to business. This enables them to encourage the start-up to execute in line with their philosophy of securing a paying customer before building the product.

Interestingly Djäkne both accepts start-ups that have been through accelerators, and aids internally grown start-ups to access such programmes, with StudyBee and United Robots two examples respectively.

4.1.4 Characteristic – Analysis

External Characteristics

From the entrepreneur's perspective they have the potential to access more capital and resources from Djäkne, however will have to sacrifice more equity.

Djäkne prefer experienced entrepreneurs or professionals from an industry that opens up the required networks. Therefore Fast Track seems more suited towards inexperienced founders, especially as they can benefit more from the weekly coaching covering a broad range of topic which may be new to them.

Fast Track and Djäkne have different philosophies with regards to growing companies. Fast Track is suited towards those looking to build a high growth scalable company which may mean focusing on user growth before profitability. Djäkne encourages its businesses to sell before building the product, which tends towards more sustainable business models which may not scale as fast. As such, the programme at Fast Track is geared towards becoming investment ready. Differing form this Djäkne does not have a fixed programme and adds value to start-ups in a tailored fashion, with more emphasis on providing resources to assist with product and market development. Mats (personal interview, 9 May 2019) CTO of StudyBee had this to say when comparing the two organisations:

"Fast Track was more like, kind of almost like a school where you have to join some activities which we felt that we didn't need that. It was more forced doing things."

Internal Characteristics

From the organisation's perspective Djäkne has a very different business model to Fast Track. Djäkne has created a seemingly profitable cycle of funds, investing in start-ups for equity, earning that money back through consultancy work for the start-ups and realising gains when the venture is acquired. Lars (Skype interview, 29 April 2019) described this circular model:

"The money that we are actually invoicing, are often coming from us. Money that we have invested at the same time. So we might invest 1 million [SEK] in your company and then throughout the year we might be doing work for you then invoicing that."

Conversely Fast Track does not have an equity position in its portfolio and is in comparatively more vulnerable position with 50% of costs being covered by the city of Malmö and 50% a combination of management fee and corporate partnerships.

Djäkne's business model creates a win-win position between itself and its portfolio companies. Financing the start-ups with their own money, and providing their partners with ownership of the fund means that interest are aligned throughout the organisation. Fast Track does not have this same direct financial incentive across its organisation and does not directly benefit financially from its portfolios success. The 47 investors in Fast Track are relatively "hands off" compared to Djäkne who input their time and resources alongside money to increase the upside potential.

4.2 Design Thinking

4.2.1 Design Thinking - Accelerator

Exploration

Fast Track only accepts participants with an existing customer base and there were indications of user empathy building among their start-ups. During the programme BookBoost's increased customer understanding and guidance on how to build a scalable business model, led them to

focus on specific customers. Mats (personal interview, 9 May 2019) described how maintaining contact with teachers resulted in a cocreation of their product features, as teachers advised:

"*What they need, where areas needs to be improved and so on, what they lack in the current version of StudyBee."*

Nino, promotes design thinking methods, although he joined Fast Track following the interviewee's graduation and there was no indication of this work in the interviews with them.

Idea Generation

Joël advised that they encourage their start-ups to experiment in a secondary markets however neither start-ups practiced this and there was no indication of any other form of ideation.

Experimentation

Heidi advised that they encouraged their cohort to experiment with their user base on the path to product market fit, however there was no indication from BookBoost or StudyBee of prototyping or experimentation during the programme.

Design Thinking Tools

Table 4 Design thinking tools used by the start-ups and encouraged by the accelerator

	BookBoost	StudyBee	Fast Track - Advocated
Tools used/ advocated	Assumption surfacing	Ethnography Co-creation	Prototyping Assumption surfacing

4.2.2 Design Thinking - Startup Studio

Exploration

There are a number of examples of deep user research and empathy building amongst Djäkne's portfolio. Twiik began with a text messaging service which built an initial user base, enabling user learnings. Whilst at Djäkne they deepen their customer understanding, attending events with their influencers, and providing around the clock support to coaches.

As co-founders, United Robots uses MittMedia as a test bed and pilot customer for every product that they launch. This enables deep customer understanding before fully developing products.

StudyBee have regular contact with teachers and brought an American teacher into the team, to help them empathise with their target audience when entering the U.S. market. Furthermore they run pilot projects at schools when entering new markets, to build empathy and receive feedback.

Idea Generation

There was no indication that StudyBee experimented with different ideas at Djäkne, however both Twiik and United Robots have ideated different value propositions.

Twiik ideated several value propositions regarding digitised personal training. These included, a business to consumer coaching model, an online tool for coaches, mobile applications for gyms and corporate health services.

United Robot produces ‘bots’ which automate tasks. They have ideated bots for different purposes and markets including media, weather, traffic and banking needs.

Experimentation

There was no indication of experimentation or prototyping from StudyBee during their time at Djäkne. Despite this Djäkne has a philosophy of selling to customers before building products, with prototyping being a method to achieve this. This applies to the companies they invest in, as Johan (personal interview, 24 April 2019) explained:

"Usually, they've proven that there's someone willing to pay for what they do."

Experimentation was practiced by United Robots and Twiik. United Robots tests different prototype bots at MittMedia, who provide feedback. Twiik practiced experimentation, before joining Djäkne, with a text messaging group and a prototype app. Since joining Djäkne they experimented with different value propositions creating products for three markets; a coaching marketplace, a white label app for gyms and the corporate health app. Twiik gained customers across all three, running them until they had insights to select one to focus on. Facilitating a merger between Twiik and one of the portfolio start-ups, who had a large database of gyms and coaches in Sweden, Djäkne enhanced Twiik’s ability to run such experiments.

Design Thinking Tools

Table 5 Design thinking tools used by the start-ups and encouraged by the startup studio

	Twiik	United Robots	StudyBee	Djäkne - Advocated
Tools used/ advocated	Participant observation Field testing Prototyping Co-creation	Job-to-be-done analysis Field experiments Prototyping Co-creation	Co-creation	Prototyping Co-creation

4.2.3 Design Thinking - Analysis

Both Fast Track and Djäkne, allow participants to operate in their own manner. They do however both encourage actions which have links to design thinking methods. Fast Track selects start-ups that have an existing customer base as they want the teams to be able to test with this crowd during the programme. Despite taking certain actions that fall into the design thinking sphere such as building empathy and co-creating with customers, neither start-up followed the typical design thinking process of exploration, ideation and experimentation.

These methods were seen more evidently at Djäkne's start-ups. A bookcase in Djäkne's coffee bar (picture, 10 May 2019) included a copy of Tim Brown's Change by Design, however when interviewed the three Djäkne partners did not refer directly to design thinking. They did however, all indicate that there is a preference for their start-ups to launch with pilot customers, which naturally leads to strong customer empathy, ideation and experimentation before building a mature product. This was also supported by the "Tactics" slide of their internal presentation provided by Lars Widmark (internal document, November 2017) which stated:

"Sell it before you build it."

United Robots' partnership with MittMedia is the best example of the link between Djäkne's philosophy and design thinking, as the exploration, ideation, experimentation loop is embedded into their continuous operations. Overall there is a stronger tendency for design thinking methods at Djäkne's start-ups.

4.3 Lean Startup

4.3.1 Lean Startup – Accelerator

Build, Measure, Learn

There were no strong indicators of lean methods applied by BookBoost or StudyBee. During the programme BookBoost focused on building their organisation, rather than products or features to be tested. StudyBee did develop their product during the programme, however there was no indication of building minimal versions for testing. Despite this there was encouragement by the organisations management. Fast Track accept companies that have something to test, and they encourage their participants to track the following metrics, number of signups, demand for product via clicks on a landing page and app engagement, as Heidi (Skype interview, 2 May 2019) advised:

> *"We want them to be in a stage where they can put something out and test something. So whether that is just to see if people sign up, or whether it is just kind of a simple website where you say I want this product or you answer some questions."*

Furthermore Fast Track's in house designer can help start-ups create landing pages which can facilitate lean tactics such as fake door tests. Despite this neither BookBoost or StudyBee utilised these services or showed any indication of tracking metrics during their time in the programme.

Product Market Fit

Fast Track encourages its cohort to iterate towards product market fit with the intention of being a scalable venture capitalist fundable company. Joël explained to facilitate such iterations they encourage experiments often and quickly.. Joël (phone interview, 22 April 2019) specifically mentioned how they experiment in secondary markets in a bid to find product market fit:

> *"Everything you do has to be an experiment… Usually it is more experimentation towards how your product fits the market and how you sell the product… Usually all have one customer base that works well and they experiment on the side with new customers."*

In the past they have also brought in a guest lecturer to speak about reaching product market fit, and Heidi (Skype interview, 2 May 2019) reiterated Joël's points stating:

"We're trying to figure out product market fit...we do encourage them to try to figure out how they can pivot."

Despite this neither BookBoost or StudyBee indicated that they were iterating towards product market fit. BookBoost advised that following the programme they realised they had not yet found product market fit.

Organisational Formation

Although Fast Track encourages iteration, it favours established companies as they will need to be written into a shareholders agreement and issue money to the start-ups bank account. Both start-ups had formed their organisations before joining Fast Track. BookBoost described how one of the key focused during the programme was building the organisation for scalability.

Lean Tactics

Table 6 Lean tactics used by the start-ups and encouraged by the accelerator

	BookBoost	StudyBee	Fast Track - Advocated
Tactics used / advocated	None indicated	None indicated	Interviewing customers Fake door tests

4.3.2 Lean Startup - Startup Studio

Build, Measure, Learn

Djäkne does not enforce lean methodologies or actively promote lean startup but they do encourage start-ups to sell before they build, approaching pilot customers with a prototype. Such interactions lead to learnings and in turn iterations. Twiik, United Robots, and StudyBee all used elements of lean methods with regards to validating products before fully developing them.

United Robots receives feedback on its prototypes from MittMedia, iterating accordingly, and if utilised by MittMedia there is clear market demand being indicated, encouraging further

builds. StudyBee's mobile app was validated via customers before the build however they did not track lean metrics.

Twiik exemplified the lean loop. They used a PowerPoint presentation to sell apps before building them. Now built and running they measure metrics such as monthly active users, new users, retention, sales, revenue and coaches onboarding success which included traffic to coaches and their social media activity. Furthermore Djäkne's tech team converted their code to React Native, enabling A/B tests on Android and iOS platforms. Learnings from these metrics and tests have been applied. For example they created a 'money makers guide' for coaches which was the result of learning best practices for launching a coach on its platform, thus increase success on the platform.

Product Market Fit

Djäkne encourages its portfolio to tweak and test in different markets, until there is indication of product market fit. Twiik trialled different products and markets before finding product market fit with their coaching platform. United Robots iterates pilot products and abandons disregarded by MittMedia. StudyBee however, showed no indication of iterating towards product market fit.

Organisational Formation

Both StudyBee and Twiik were established companies before joining Djäkne. The fact Twiik was established did not hinder iterations with several product offerings and markets. United Robots was officially established after prototyping and iterating an initial product.

Lean Tactics

Table 7 Lean tactics used by the start-ups and encouraged by the startup studio

	Twiik	United Robots	StudyBee
Tactics used / advocated	A/B testing & Prototyping	Prototyping	Prototyping

4.3.3 Lean Startup - Analysis

The managers at Fast Track indicated that they encourage participants to experiment and validate their business tracking metrics such as user signups, product demand and engagement, in line with the lean startup methodology. Despite this the two graduate participants interviewed did not employ lean methods during the programme. Contrasting to this two out of the three participants at Djäkne were employing lean methods. Applying lean startup methodologies is not a requirement at Djäkne. However the efforts of start-ups using such methods have been bolstered by Djäkne's involvement, for example providing infrastructure for A/B testing and forming relationships which permit prototype pilots. Overall there is a stronger tendency for lean startup methodologies at Djäkne, partly due to the advanced means of start-ups receiving support.

4.4 Effectuation

4.4.1 Effectuation - Accelerator

Investment Network

Fast Track boosts the start-ups investor network with weekly investor meetings and Malmö Demo Day at the end of the programme. The high focus on regional investors has been one of the success factors contributing to the record of 80% of graduates receiving follow on funding.

Both BookBoost and StudyBee raised funding following the programme. BookBoost have since raised further funding and StudyBee stressed the importance of the capital to ensure operations continued. Interestingly, Djäkne invested in StudyBee after the programme.

Mentorship

The mentorship from Fast Track's staff and coaches has helped start-ups with goal setting and focus during and after the programme. For example, Daan explained before joining Fast Track they were inexperienced entrepreneurs unsure how to progress. Daan (phone interview, 26 April 2019) received help with investor communication and task prioritisation and stressed the benefit of this support:

"They offered a constructive kind of support, how to build a start-up *and what to think about it… one of the big benefits is this feeling of being able to reach out when you need it."*

The direction of focus provided by Fast Track helped enable them to secure funding from business angels at the end of the programme. This enabled the creation of a sales team and in turn helped secure further funding. Furthermore, as alumni's, they use the management team of Fast Track to occasionally discuss issues they face. Thus, the benefits resulting of this guidance expands after the programme.

Resources

Fast Track's in house designer can improve company image and online presence aiding with legitimacy building which will in turn enhance their means. Office space at Fast Track also helps with legitimacy and potentially reduces company overhead.

Cohort Interactions

Fast Track deliberately selects a diverse cohort, with the intention that teams will be able to help each other in different areas of expertise. Furthermore Fast Track is located in the Start-up House Minc which houses an incubator, coworking space, offices, and hosts events, creating an entrepreneurial environment. BookBoost expressed the value of being in such a community where there is support and advice. On the other hand, Mats, explained that the cohort was composed of only a few companies, with just one in the office space. Hence, they did not benefit from the community in the same way as BookBoost did.

4.4.2 Effectuation - Startup Studio

Investment Network

Djäkne has a large financial network as it is involved in many transactions and has a number of partners operating in the entrepreneurial team with relevant networks. Furthermore Djäkne's partners actively attend trade and investor networking events to expand their contacts, and thus the start-ups' network. For example, Johan described how he recently returned from a week's tour of Silicon Valley organised by the Blekinge Business Incubator. The tour encompassed five meetings per day with different investors and companies (Johan Henricson, internal document, April 2019). As he stated:

"We have all this network, and we know these people that they can use. So rather than them [the start-ups] going around attending all these conferences, these are things we can do for them."

Mentorship & Resources

With regards to mentorship, the start-ups can approach the entrepreneurial, developer and accountancy teams for guidance on an ad hoc basis free of charge, Anders (personal interview, 6 May 2019) noted that:

"In that case we just steal hours. Basically we just walk up and we ask questions. Since they are shareholders in the company as well I think it is, there is a little bit of give and take."

The development team at Djäkne aiding the start-ups with their product development. StudyBee described how they created a base layer of code to build a mobile app upon and Anders describes how the team helped to convert Twiik's software to the programming language React Native. Finally, Twiik received support from the entrepreneurial team when deciding on market focus.

With regards to longer term deals, both the development and entrepreneurial team can take significant roles at Djäkne's start-ups. Both Twiik and United Robots have Djäkne's developers working full time on deals spanning years. Sören (Skype interview, 7 May 2019), said:

"It was a quick and easy way to get hold on really, really, really, skilful developers. Of course, it's not cheap but it allowed us to, to quickly get up and running."

Furthermore, working for United Robots, Marvin, has secured a place at a Dutch accelerator, brining further capital into United Robots. If Marvin has initial success opening the Dutch market, United Robots core team will set a goal to capture a sizeable share of that market.

Cohort Interactions

A number of Djäkne's portfolio sit at their premise in Malmö in a semi open office space. An entrepreneurial environment is fostered by combining the office with a coffee bar and a coworking space. This encourages regular interactions, both between the different start-ups and Djäkne's partners and facilitates a flow of talent and networking opportunities for the portfolio.

Market Contacts

Djäkne's corporate consulting enables the portfolio to benefit, growing a relevant network and gaining market insights. Djäkne is keen to share contacts and market knowledge across their portfolio. One of their companies was operating in the U.S. and with StudyBee planning to enter the market, Djäkne arranged knowledge and contact transfer, leading to StudyBee's market entrance.

Djäkne applies this logic when reviewing start-up applicants, preferring those with synergies to their portfolio and the markets they operate in. For example, extensive expertise with sports, led Djäkne to invest in a healthy snacks start-up, which would otherwise be an atypical investment.

4.4.3 Effectuation - Analysis

Both organisations expand the network of their portfolio, which results in enhanced means and new goals. Fast Track's focus is on expanding the start-ups' investment network, which is in line with their goal of aiding the start-ups to become a scalable VC fundable company, as Heidi Lindvall clearly explained on Malmö Start-ups' YouTube channel (2019).

Djäkne also enhances its portfolios investment network, leading them to new means and goals. Furthermore it has a strong focus on enhancing their start-ups' team with Djäkne partners which provide enhanced means. This is usually with the goal of aiding the start-up to build a sustainable business that can survive off its own revenue.

4.5 Business Planning

4.5.1 Business Planning - Accelerator

Fast Track does not recruit participants based on a business plan, nor promote the use of them. When asked about application requirements Joël (phone interview, 22 April 2019) explained:

"I haven't seen one [business plan] in the last five years. We look for two things, a pitch deck and links to all people in team. Links to founders, social links; GitHub, Facebook, LinkedIn, AngelList - stuff that defines you online."

Joël explained that weekly workshops guide the participants with regards to a number of business aspects such as vision, direction, KPI's marketing, pitching. Daan added to this explaining they were taught how to build an organisation or even how to do public relations. Vision, marketing and organisational structure are elements of business planning, however neither start-up captured these elements in a business plan document.

4.5.2 Business Planning - Startup Studio

When selecting participants, Djäkne does not require a business plan and they do not encourage business planning during operations. Despite this there were various degrees of business planning taking place at Djäkne's start-ups. Sören (Skype interview, 7 May 2019) described how United Robots created a business plan when they first launched:

"It was a business plan for ourselves, trying to formulate what we were trying to do...to make sure that you have thought of your challenges in a structured way."

The plan was used onboarding initial employees, however without update it became outdated.

Twiik does not have a business plan, however Anders described an investor deck which covered a number of traditional business planning elements. For instance a business model, roadmap, market forecasts, business metrics, team information and a competitor analysis. Furthermore during strategy meetings with Djäkne partners they performed a SWOT analysis.

4.5.3 Business Planning - Analysis

Business planning is not required or encourage by either Fast Track or Djäkne. Joël was dismissive of the practice, a standpoint echoed by the cohort who spent no time working on a business plan. Despite this weekly coaching did cover certain aspects of business planning and Daan advised building the organisation was a focus of their time in the programme. Therefore it can be inferred that although a business plan was not created or maintained, some of the same planning and analysis that go into that processes were conducted by BookBoost.

Again start-ups at Djäkne do not keep a live business plan document in the traditional sense, however certain aspects are still used when they believed it provided significant value. With two start-ups and partners at Djäkne conducting some elements of business planning there are stronger indications of business planning methods at Djäkne than Fast Track.

5 Discussion

5.1 Research Aims & Objectives

Considering the relatively new trend of startup studios, the research aim was to gain an understanding of the organisation to determine whether it is a new phenomenon or a rebranding of existing support. Seemingly there were similarities between accelerators and startup studios, thus two cases were analysed; one of each organisation type. The study explored the characteristics of each organisation, and how entrepreneurial methods were promoted by them and utilised by their portfolio. The methods explored were, design thinking, lean startup, effectuation and business planning. Thus, attributes could be distinguished while exploring a variety of perspectives.

5.2 Literature Implications

5.2.1 General Characteristics

An important finding distinguishing both organisations, is the scale of investment. The accelerator invests $50,000 in portfolio companies via a convertible note, seemingly a considerable amount in comparison with other studies (Cohen & Hochberg, 2014; Cohen, 2013). Contrasting, the startup studio tailors investments to the start-up, with the upper bracket of investment set at $525,000. Alongside capital these deals can include a combination of developer and entrepreneurial team hours, which contribute toward reaching agreed product and market development milestones. Baumann et al. (2018) suggested that additional resources and support provided by the startup studio lead to a minimal equity share of 5-10% on the entrepreneur's side. However this studied revealed, the start-ups retain significantly larger equity positions, as the optimal range is between 25-35% ownership for the researched startup studio. This is a tactical choice to remain a supportive ‘cofounder’ with the responsibility for success weighted towards the entrepreneurs side. Due to the use of the convertible note the

accelerators equity position varies between start-ups, however their position is not expected to reach as high as 25% ownership.

In line with the literature the accelerator provides a time-limited programme (Cohen & Hochberg, 2014). The focus of the programme is to guide the start-ups towards building a high growth scalable company and become investment ready. This was achieved through networking events, seminars, and mentorship, as is common with accelerator programmes (Valliere, Gedeon & Wise, 2014; Cohen & Hochberg, 2014; Cohen, 2013). Contrasting to this, the startup studio emphasised it does not run a programme. Companies stay at their premises for indefinite lengths where they can continue to receive ad hoc support from partners. Deals with regards to in depth partner support, such as team members and product builds, are made on a case by case basis around different timeframes, milestone and requirements. This builds on Kreusel, Roth and Brem's (2018) analysis of 'company builders', a term they interchange with startup studio, which detailed the intertwined relationship of the company builder and start-up for an indefinite length. The startup studio in question, provides this level of support and resources with the intention that the start-up will grow to become a self-sufficient company generating its own revenue. Thus the intentions and approach of the two organisations differ as the accelerator's coaching efforts focus on scalability and growth and the startup studio focuses the injection of resources on creating sustainable, self-sufficient companies.

It can be inferred that these difference in intention and approach are due to differing motivations between the two organisations directors or partners. As the accelerator is not invested in its fund, motivation for achieving portfolio success is derived from building reputation to aid with future fundraising, and meeting KPI's set by the parent organisation, most notably 80% portfolio follow on funding.

This can motivate the staff to encourage the start-ups towards follow on funding quickly, a practice that has caused criticism of accelerators as onboarding the wrong investors can prevent the next Facebook or Google being grown (Miller & Bound, 2011). The startup studio's goal is to build self-sufficient companies, and the motivation seems to come from two factors. Firstly their belief that by building strong businesses follow on funding will approach them, and secondly, self-sufficient portfolio start-ups can purchase additional consultancy services from them.

This circular flow of capital throughout the organisation and its portfolio companies is another interesting finding. The startup studio's business model allows it to earn back its initial

investment through follow on consultancy work. A number of its portfolio are using their services and stressed the benefit. This differs from the accelerator's model which relies on its management fee and governmental funding. It also differs from private accelerators detailed in the literature which have a heavier reliance on capital from exits (Clarysse, Wright & Van Hove, 2016; Miller & Bound, 2011). The startup studio was able to start the flow of capital in this model due to a large sum of capital created via exiting an earlier venture.

5.2.2 Entrepreneurial Methods

Both the organisations demonstrated promotion of certain elements of the entrepreneurial methods and the utilisation within the start-ups varied. Notably the startup studio had a venture building philosophy which encouraged certain methods. This philosophy of co-creation with the client and selling before building, encouraged start-ups towards the design thinking phases of, exploration, ideation and experimentation (Liedtka, 2015; Mansoori, 2017). Two portfolio start-ups worked through the three phases, gaining an understanding of customer needs, building prototype products and testing these in different markets.

The example of their internally grown start-up demonstrated how lean methods could be applied without limitations of organisation boundaries as described by Stayton and Mangematin (2016), as the startup studio was able to iterate a solution with the client before the company formation. Stayton and Mangematin (2016) advise the organisation should be formed once the product is ready to go to market and again this was the case with the startup studio forming the company once the client contract had been made. This case seems typical for internally formed companies at the startup studio, however when investing in external start-ups, the startup studio has invested in companies that are organisationally formed. Opposing Stayton and Mangematin (2016), one start-up was able to execute lean methods, testing several different value propositions and markets, despite organisational formation occurring before partnering with the startup studio.

Previous literature suggests that the promotion of lean startup methodology is prevalent at accelerators and indeed the accelerator in question does promote lean methods (Seet et al., 2018). Experimenting, in a minimal fashion and often, iterating to product market fit was encouraged by the management and in line with the lean startup methodology (Ries, 2011; Haines, 2014). Despite encouraging this the accelerator had a tendency to favour organisations which were formed, which contrasts to the advice from Stayton and Mangematin (2016).

Although lean methods were encouraged by the programme managers, there were not strong indicators of lean methods at the interviewed start-ups. One participant explained how the main focus was building the organisation. This participant claimed that following the programme they had to restructure as they realised they had not found product market fit, which does emphasise the importance of Stayton and Mangematin (2016) advice, highlighting the benefit of the startup studios approach with their internally generated start-ups and their venture building philosophy.

Despite this, the seemingly lack of lean methods at the accelerator may be due to the fact that these two start-ups simply chose not to apply such methods, whereas others did. The accelerator is like a school in that sense covering a variety of topics and start-ups choose what to apply. A start-up which worked with both organisations showed little signs of lean methods at both organisations. Only slightly more at the startup studio, because the resources were available for them to react to customer requests for an app.

Thus suggesting, extra resources provided by the startup studio may be another reason why lean startup and design thinking methods were more notable at their start-ups, as these help to facilitate these processes. This is contradictory to the lean philosophy as such methods should be applied in a minimal way, with minimal cost (Ries, 2011). However the additional resources provided by the startup studio enhance the start-ups means. These new means allow the start-up to reassess what they can do and create new goals (Sarasvathy, 2001). Thus potentially leading the start-ups to become exaggerated version of themselves, displaying previously existing traits more prominently. An example is the start-up that utilised a text messaging service before joining the startup studio, applying the methods of lean startup and design thinking (Ries, 2011; Brown & Katz, 2011). However with the increased means from the startup studio's resources, they were able to test several products and markets, which they otherwise would have not been able to do.

The resources provided by the startup studio certainly enhanced the start-ups means more so than resources provided by the accelerator, however in line with the research of Goswami, Mitchell and Bhagavatula (2018) the accelerator does enhance the start-ups means significantly through the investor network. Here the accelerator differentiates to the startup studio by providing a wider network as opposed to a more targeted network by the startup studio. Further research on this area would be required to assess which was more beneficial to the start-ups.

As discussed by Hallen, Cohen and Bingham (2017), the accelerator also contributes to the start-ups means by enhancing their "know what to do" and "how to do". This is achieved through weekly coaching and mentoring. The startup studio does not provide such a programme but can provide more detailed support on specific issues, whereas the accelerator covers a wider range of topics, without the capacity to dive into such specifics. The startup studio goes one step further than "know what to do" and "how to do" by actually doing. By injecting its resources, it seems the startup studio has the potential to accelerate ventures faster than the accelerator. Looking at the case of the internally formed start-up, it is observed that in a three month period, one month less than the accelerator's programme, the company was formed, first product delivered and revenue generated.

There was an appreciation by both organisations and the start-ups that, at early stages, time is a scarce resource for start-ups (Seet et al., 2018). This was reflected in the general approach to business planning across all parties interviewed. Despite certain elements of business planning indicated, all parties gave a higher priority to execution and iterative learnings associated with lean and design centric methods as suggested by Seet et al. (2018).

It is understood that accelerators create an environment for rapid progress (Miller & Bound, 2011; Cohen & Hochberg, 2014). Indeed both the accelerator and the startup studio enable rapid progress of their portfolio, however rapid progress in different directions. The accelerator aids start-ups with rapid progression to a scalable business model and investment readiness. Whereas the startup studio's customer centric venture building philosophy and means enhancing resource injection, rapidly progresses its portfolio to sustainable self-sufficient businesses.

5.3 Practical Implications

Based on our results several possible implications exist for both start-ups seeking support and directors of accelerator and startup studio organisations. Founders considering whether a startup studio or an accelerator is right for them should ask themselves certain questions: What are the goals of my organisation? What are the needs of my organisation? How much equity am I prepared to sell? Answering these questions are important as seen across these two cases the startup studio and accelerator can assist the start-ups in different ways. The startup studio in this case provides much greater resources and is motivated to aid the start-up to be self-

sufficient in fast time frame. The accelerator on the other hand focuses on broadening the investment network and creating a scalable business model. It is important the start-up understands the motives behind the organisations and ensures their own motives are aligned.

For these particular cases, the startup studio seems most suited for experienced professionals with a specific network, looking to start a company, or start-ups that require the added resources particularly in the technical domain. The accelerator seems most suited to early stage start-ups looking to create high growth companies.

Directors of startup studios and accelerators should be aware that cooperation can be beneficial. The two cases demonstrate how a symbiosis can be formed with startup studio investing in the accelerators fund, and the accelerator providing a regular batch of accelerated graduates for the startup studio to potential invest in. Adding to this the example of the start-up internally formed at the startup studio and later entered into an accelerator, demonstrates how both organisations can provide prospective start-ups to each other and the two organisation can coexist prosperously.

6 Conclusion

The purpose of the research was to gain an understanding of startup studios characteristics to determine whether they are a new phenomenon or a rebranding of existing support. Commonly, findings leaned towards showing similarities among accelerators and startup studios. Hence, the research explored one case of each. By exploring their characteristics along with the promotion and utilisation of four entrepreneurial methods, the study sought to expose both organisations through various perspectives. Consequently an analysis of the empirical results enabled part of the research purpose to be answered.

With regards to the general characteristics of the support organisations, differences were identified with regards to the external and internal characteristics. Externally, from a prospective start-up's point of view, there is potential to access more finances, resources and support from the startup studio, however at the sacrifice of more equity. Internal to the organisations, there is a significant difference with regards to the business models. The accelerator funded operations via a fund management fee and government money. Contrasting to this the startup studio generated revenue from its portfolio via consultancy work, providing a circular flow of investments and earnings between the organisation and its portfolio.

Both similarities and differences were indicated with regards to entrepreneurial methods promoted by the organisations and utilised by their portfolio. Design thinking and lean startup were more prevalent at the startup studio than at the accelerator. An explanation could be the startup studios' motivation for building sustainable, self-sufficient companies and their philosophy for achieving this; co-creating products/ services with the customers. This philosophy, which has many parallels with lean and design thinking methods, may lead portfolio companies to sustainable revenue streams faster and hence provide the possibility for the startup studio to generate consultancy revenue from them faster. Contrasting to this, the accelerator programme focused on supporting start-ups, with regards to building high growth scalable businesses and becoming investment ready; not co-creation and early revenue.

The organisations impacted the effectuation logic of the start-ups differently as they did not enhance the start-ups means in the same manner. The accelerator appeared to broaden start-ups

financial networks more widely whereas the startup studio provided a more specific network and enhanced means with added resources. Both made use of it in a consequent manner which was reminded in previous studies (Valliere, Gedeon & Wise, 2014; Cohen, 2013; Cohen & Hochberg, 2014). Eventually, business planning did not particularly appear to be promoted by any organisation.

This study has exposed differences in the accelerator's and startup studio's characteristics, and promotion and utilisation of entrepreneurial methods. Thus highlighting differences with regards to what they want to achieve, how they intend to achieve it and how they operate to realise this. Despite this it has not been able to confidently generalise the purpose of the research. The paper intended to explore whether startup studios are a new phenomenon or a rebranding of another support organisation. Alone this study does not answer this, however the differences discovered between the two organisations can facilitate further studies into the trend.

6.1 Limitations

This study does not go without research limitations. First, the cases were purposely selected based on a regional level. Indeed, both were from the same city in the south of Sweden. It is possible that this particular region has a different dynamic than other cities or countries. Also, the government might influence the emergence of these type of support organisations, limiting or enhancing certain traits (Levie et al., 2014; Pauwels et al., 2016). Therefore, further researches should take into consideration external environment contexts while exploring startup studios.

In addition to this voluntary choice, the research selected its cases based on a purposive sampling. A purposive sampling increased the likelihood to get relevant information from relevant individuals (Bryman & Bell, 2011). Hence, the empirical results might contain biased results due to a non-random sampling technique.

Second, interviewees were from the tech world. The start-ups all had software oriented businesses and the partners of the two organisations made primarily tech oriented investments. The outcomes of the study might not be relevant or applicable to other industry type of start-ups.

The study presents another limitation in regards of the validity of its results. Using a member validation technique could have improved the accuracy of the results by presenting the findings to the participants even though it may contain limitations as exposed by Bryman and Bell (2011). Nevertheless, this technique could have improved the validity of the findings.

Last, an analysis on entrepreneurial methods was pursued to distinguish the accelerator and the startup studio. Other criteria could have differently assessed these organisations.

6.2 Future research

Going back to the purpose of the research, different elements could be further explored or altered from this study to enhance the explanation of the similarities and differences of the two start-up support organisations. A qualitative study was conducted, looking for in-depth data to compensate the limited literature in this area. This type of approach has certain limitations. Therefore, the researchers would recommend future studies to undertake a quantitative paper giving a broader and more generalisable perspective to the results. Indeed, a quantitative research might support the findings from this study and therefore make more generalisable results. This brings to a second possibility for future research. Throughout the study, specific samples from a particular region were selected. Future research could elaborate on those findings by combining accelerators and startup studios from different regions throughout Europe. In addition, instead of using a purposive sampling, researchers would benefit from random sampling for more relevant results.

An analysis based on different industries could widen the possible differences between startup studios and other start-up support organisations in regards of the entrepreneurial methods. Analysing and observing how this impacts start-ups coming from different industries would be valuable (e.g. food, energy, finance).

Considering the broad investor network provided by the accelerator and specific investor network provided by the startup studio studied, there is potential for future research. This could include, a study to see if this is common practice across both types organisation, or an exploration as to which is more beneficial for the portfolio.

The venture building philosophy of the startup studio encouraged co-creation with clients and led to utilisation of design thinking and lean methods. In turn this seemed to lead to sustainable

businesses which generated revenue relatively fast. Future research could explore the aims and motivations of startup studios to identify similarities and differences in approach.

Different criteria to the entrepreneurial methods may be more effective at understanding whether startup studios are a distinct support organisation. There was significant differences in the business model of both organisations and this could be a starting point for future research.

Internal variations between accelerators or between startup studios may be larger than between the startup studio and accelerator in this research. Future research could look at the macro state of the trend to gain a perspective on such variations.

Given the relationship between the two organisations studied, partnerships between accelerators and startup studios could be investigated further, exploring the potential of prosperous symbiosis.

References

Ackoff, R.L. (1981). The art and science of mess management, *Interfaces*, vol. 11, no. 1, pp.20-26

Baumann, O., Bergenholtz, C., Frederiksen, L., Grant, R.M., Köhler, R., Preston, D.L., & Shane, S. (2018). Rocket Internet: organizing a startup factory, *Journal of Organization Design,* vol. 7, no. 1, pp.1-15

Blank, S. (2006). The four steps to the epiphany: successful strategies for Products that win, BookBaby

Bonk Sarmento, C.F., de Carvalho, C.A.S. & da Rocha Dib, L.A. (2016). Effectuation and the influence of social networks on the internationalization of accelerated startups, *Internext: Review of International Business,* vol. 11, no. 1, pp.63-73

Brown, T. & Katz, B. (2011). Change by design, *Journal of product innovation management,* vol. 28, no. 3, pp.381-383

Bruderl, J. & Schussler, R. (1990). Organizational Mortality: The Liabilities of Newness and Adolescence, *Administrative Science Quarterly,* vol. 25, no. 3, pp.530-547

Bruton, G., Khavul, S., Siegel, D. & Wright, M. (2015). New financial alternatives in seeding entrepreneurship: Microfinance, crowdfunding, and peer-to-peer innovations, *Entrepreneurship Theory and Practice,* vol. 39, no. 1, pp.9-26

Bryman, A. & Bell, E. (2011). Business research methods, Oxford: oxford university press

Boyd, B.K. (1991). Strategic planning and financial performance: a meta-analytic review, *Journal of management studies,* vol. 28, no. 4, pp.353-374

Carlgren, L., Rauth, I. & Elmquist, M. (2016). Framing design thinking: The concept in idea and enactment, *Creativity and Innovation Management,* vol. 25, no. 1, pp.38-57

Clarysse, B., Wright, M. & Van Hove, J. (2016). A look inside accelerators in the United Kingdom: Building technology businesses, *Technology entrepreneurship and business incubation: Theory, practice, lessons learned,* pp.57-86

Cohen, S.L. (2013). How to accelerate learning: entrepreneurial ventures participating in accelerator programs, PhD thesis, University of North Carolina at Chapel Hills, Available Online: https://cdr.lib.unc.edu/indexablecontent/uuid:3f1e2291-3eb5-4206-9441-9ee1aa03716d [Accessed 17 February 2019]

Cohen, S.G. & Hochberg, Y.V. (2014). Accelerating startups: The seed accelerator phenomenon.

Creswell, J.W. (2007). Qualitative inquiry & research design: choosing among five approaches, Sage publications

Creswell, J.W. (2013). Qualitative inquiry and research design: Choosing among five approaches, Sage publications

Creswell, J.W. (2014). Research design: Qualitative, Quantitative, and Mixed Methods Approaches, Sage publications

Delmar, F. & Shane, S. (2003). Does business planning facilitate the development of new ventures?, *Strategic management journal,* vol. 24, no. 12, pp.1165-1185

Draman, R. H. (1995). A new approach to the development of business plans: A cross functional model using the theory of constraints philosophies, PhD thesis, University of Georgia, Athens, GA.

Fehder, D.C. & Hochberg, Y.V. (2014). Accelerators and the regional supply of venture capital investment, Available Online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2518668 [Accessed 11 March 2019]

Fraser, S., Bhaumik, S.K. & Wright, M. (2015). What do we know about entrepreneurial finance and its relationship with growth?, *International Small Business Journal,* vol. 33, no. 1, pp.70-88

Goswami, K., Mitchell, J.R. & Bhagavatula, S. (2018). Accelerator expertise: Understanding the intermediary role of accelerators in the development of the Bangalore entrepreneurial ecosystem, *Strategic Entrepreneurship Journal,* vol. 12, no. 1, pp.117-150

Haines, J.K. (2014). Iterating an innovation model: challenges and opportunities in adapting accelerator practices in evolving ecosystems *Ethnographic Praxis in Industry Conference*

Proceedings, Paper 4, Available Online: https://anthrosource.onlinelibrary.wiley.com/doi/epdf/10.1111/1559-8918.01033 [Accessed 19 March 2019]

Hallen B.L., Cohen, S.L. & Bingham, C.B. (2017). Do accelerators accelerate? If so, how? The impact of intensive learning from others on new venture development

Hochberg, Y.V. (2016). Accelerating entrepreneurs and ecosystems: the seed accelerator model, *Innovation Policy and Economy,* vol. 16, pp.25-52

Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning, *Academy of Management Learning & Education,* vol. 3, no. 3, pp.258-273

Kale, S. & Arditi, D. (1998). Business Failures: Liabilities of Newness, Adolescence, and Smallness, *Journal of Construction engineering and management,* vol. 124, no. 6, pp.458-464

Kreusel, N., Roth, N. & Brem, A. (2018). European business venturing in times of digitisation - an analysis of for-profit business incubators in a triple helix context, *International Journal of Technology Management,* vol. 76, no. 1-2, pp.104-136

Lee, T.W., Mitchell, T.R. & Sablynski, C.J. (1999). Qualitative research in organizational and vocational psychology, 1979–1999, *Journal of vocational behavior,* vol. 55, no. 2, pp.161-187

Leonard-Barton, D. (1990). A dual methodology for case studies: synergistic use of a longitudinal single site with replicated multiple sites, *Organization Science*, vol. 1, no. 3, pp.248-266

Levie, J., Autio, E., Acs, Z. & Hart, M. (2014). Global entrepreneurship and institutions: an introduction, *Small business economics,* vol. *42*, no. 3, pp.437-444

Liedtka, J. (2015). Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction, *Journal of Product Innovation Management,* vol. 32, no. 6, pp.925-938

Malmö Startups (2019). Malmö Startups, [video online] Available Online: https://www.youtube.com/watch?v=CuWw6_Vs4-Q&t=383s [Accessed 14 May 2019]

Mansoori, Y. (2017). Entrepreneurial Methods as Vehicles of Entrepreneurial Action, Division of Entrepreneurship and Strategy, Department of Technology and Economics, Chalmers University of Technology

Mason, C., & Brown, R. (2014). Entrepreneurial ecosystems and growth oriented entrepreneurship, Paris: Final Report to OECD, Available Online: https://www.oecd.org/cfe/leed/Entrepreneurial-ecosystems.pdf [Accessed 19 March 2019]

Miller, P. & Bound, K. (2011). The Startup factories: The rise of accelerator programmes to support new technology ventures, *NESTA,* Available Online: https://www.nesta.org.uk/report/the-startup-factories/ [Accessed 8 March 2019]

Pauwels, C., Clarysse, B., Wright, M. & Van Hove, J. (2016). Understanding a new generation incubation model: The accelerator, *Technovation,* vol. 50-51, pp.13-24

Politis, D. (2005). The process of entrepreneurial learning: a conceptual framework, *Entrepreneurship Theory and Practice,* vol. 29, no. 4, pp.399-424

Radojevich-Kelley, N & Hoffman, D.L. (2012). Analysis of accelerator companies: An exploratory case study of their programs, processes, and early results, *Small Business Institute Journal,* vol. 8, no. 2, pp.54-70

Ries, E. (2011). The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses, Crown Books

Sarasvathy, S.D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency, *Academy of management Review,* vol. 26, no. 2, pp.243-263

Sarasvathy, S.D. & Dew, N. (2005). Entrepreneurial logics for a technology of foolishness, *Scandinavian journal of Management,* vol. 21, no. 4, pp.385-406

Schrage, M. (1999). Serious play: How the world's best companies simulate to innovate, Harvard Business Press

Seet, P., Jones, J., Oppelaar, L. & Zubielqui, G. (2018). Beyond 'know-what' and 'know-how' to 'know- who': enhancing human capital with social capital in an Australian start-up accelerator, *Asia Pacific Business Review*, vol. 24, no. 2, pp.233-260, Available Online:

https://www.tandfonline.com/doi/full/10.1080/13602381.2018.1431250 [Accessed 6 May 2019]

Smith, S.W. & Hannigan, T.J. (2015). Swinging for the fences: How do top accelerators impact the trajectories of new ventures? *DRUID15, ROME,* Available Online: https://conference.druid.dk/acc_papers/5ntuo6s1r5dvrpf032x24x5on5lq.pdf [Accessed 9 March 2019]

Stake, R.E. (1995). The art of case study research, Sage publications

Stayton, J. & Mangematin, V. (2016). Startup time, innovation and organizational emergence: A study of USA-based international technology ventures, *Journal of International Entrepreneurship,* vol. 14, no. 3, pp.373-409

Valliere, D., Gedeon, S.A. & Wise, S. (2014). A comprehensive framework for entrepreneurship education *Journal of Business and Entrepreneurship,* vol. 26, no. 1, pp.89-120

Yin, B. & Luo, J. (2018). How do accelerators select startups? Shifting decision criteria across stages, *IEEE Transactions on engineering management,* vol. 65, no. 4, pp.574-589

Appendix A: Form for General Information

Start-up Support Research 2019

Thanks for agreeing to participate in our Master Thesis research covering start-up support organisations. These questions cover the basics and will enable us to interview in a time efficient manner. If you have documentation which answers any of these questions please send the documentation and skip the question.

Please list the employees in your organisation and their function/ job description

Please describe your business model

Please send an operations flowchart if available

Please list any workshops/ training which are provided for the participants

Appendix B: Interview Guideline for Accelerator/ Startup Studio

1. Introduction

- Presentation of the topic
- Ask for consent to record the interview
- Declare anonymity, if required
- If they have any questions, just intervene
- Small talk before starting interview

2. Characteristics of Accelerator/ Startup Studio

- Development of the accelerator/ startup studio

  - As the interviewee tells the story of the development of the organisation and touches on the points above, we look to find out more about these areas:

  - Operations - Business model - Parties involved - Finances - Programme's philosophy - Typical Exit plans - Added value

  - Potential questions:

    - How have operations evolved overtime?
    - How has business model changed?
    - Who is involved currently?
    - In the last cohort what investments were made and what was the equity split? How has this changed overtime?
    - Currently does the organisation have a philosophy for the development of start-ups?
    - How do you plan to exit from your current cohort? How has this evolved over time?

- How are you adding value to your current cohort? How has this changed over time?

3. Entrepreneurial Methods

- Tell us about a graduate of the programme that you consider a success and why you think they were successful.

  - *When interviewee answers we are looking for information on the entrepreneurial methods promoted by the organisation and utilised by the start-up during the programme.*

  - *As the interviewee expands on their answer we will probe in the following directions, potential using questions listed below, but adapting to the interviewees answers.*

  a) Design Thinking

  - Describe a time you assisted the start-up with regards to their customers? (Based on answers find out whether they encouraged further exploration of customers' needs/ customer empathy).

  - Describe a time you encouraged new ideas and pivots?

  - Did the start-up work on multiple ideas to solve a customer's needs?

  - Did the start-up decide at any point that their customers' needs were not great enough to warrant a business? If so, how did you help them and what was their next step?

  - Did mentors/ workshops helped the start-up in this area?

  b) Design Thinking and Lean Startup

  - Describe a time when you encouraged prototyping and experimentation

  - Did the experiments add real value to the customer? Or was data collection for the start-up the primary goal? What were the learnings from such experiments/ prototyping?

  - How did the start-up benefit from such learnings?

c) Lean Startup

- Was prototyping and iteration encouraged before organisational formation, were the two promoted simultaneously or was organisational formation encouraged before prototyping and iteration?
- If the later, how did the structures impact the flexibility of teams' direction?

d) Effectuation

- Describe how you selected the mentor network during the time of this start-up? Was it designed to have specific expertise which the start-up and other participants at the time could benefit from? What was the main value add of this network for this start-up? (e.g. finance, leadership, marketing, expertise, customers)
- What was expected of the mentors during this batch?

e) Business Planning

- Did you require a type of plan from the start-up before they entered? If so, what kind information did you require and what did you analyse?
- Do you encourage and/or support the start-up to develop their business plan during the programme?

- Tell us about a graduate of the programme which discontinued its business, and expand on why you think this occurred.
  - *When interviewee answers we are looking for information on the entrepreneurial methods promoted by the organisation and utilised by the* start-up, *during the programme.*
  - *As the interviewee expands on their answer we will probe in the following directions, potentially using questions listed below. These are the same as listed previously however again the interviewer will adapt to the interviewees responses.*

a) Design Thinking

- Describe a time you assisted the start-up with regards to their customers? (Based on answers find out whether they encouraged further exploration of customers' needs / customer empathy).
- Describe a time you encouraged new ideas and pivots?
- Did the start-up work on multiple ideas to solve a customer's needs?
- Did the start-up decide at any point that their customers' needs were not great enough to warrant a business? If so, how did you help them and what was their next step?
- Did mentors/ workshops helped the start-up in this area?

b) Design Thinking and Lean Startup

- Describe a time you encouraged prototyping and experimentation
- Did the experiments add real value to the customer? Or was data collection for the start-up the primary goal? What were the learnings from such experiments / prototyping?
- How did the start-up benefit from such learnings?

c) Lean Startup

- Was prototyping and iteration encouraged before organisational formation, were the two promoted simultaneously or was organisational formation encouraged before prototyping and iteration?
- If the later, how did the structures impact the flexibility of teams' direction?

d) Effectuation

- Describe how you selected the mentor network during the time of this start-up? Was it designed to have specific expertise which the start-up and other participants at the time could benefit from? What was the main value add of this network for this start-up? (e.g. finance, leadership, marketing, expertise, customers)
- What was expected of the mentors during this batch?

e) Business Planning

- Did you require a type of plan from the start-up before they entered? If so, what kind information did you require and what did you analyse?
- Do you encourage and/or support the start-up to develop their business plan during the programme?

4. Ask if any comments and thanks.

Appendix C: Interview Guideline for Companies

1. Introduction

- Presentation of the topic
- Ask for consent to record the interview
- Declare anonymity, if required
- If they have any questions, just intervene
- Small talk before starting interview

2. Background Info & Post Programme Status (possible questions)

- Background
  - Tell us about yourself and your involvement with Start-up X.
  - How long have you been working on your business? What is your role?
- Post Programme Status
  - How is the company doing now?
  - Are you self-sufficient?
  - Do you have growing user base?
  - What are your milestones for the next 3 years?
- Back in Time
  - What made you want to join Fast Track/ Djäkne?

3. General Characteristics of Programme

- Please tell us about your experience during the programme

  Looking for information on the structure/ characteristics

  - What value did the accelerator add?
  - What did a typical week in the accelerator involve?
  - How did company benefit from the programme?
  - Did it meet expectations?
  - What could have been improved?

- How did the programme help your idea developpe?

4. Entrepreneurial Methods

a) General

- What was your role during the programme?
- What did workshops cover? Please describe one
- How often were workshops, mentor meetings?
- Tell us about start-up learnings during programme.
- Were these learnings applied? If so, how? please give us an example.

b) Design Thinking and Lean Startup

- Describe the process of organisational formation? (registration, shareholders agreement etc.).
- If already established, how did it limit flexibility to adapt during programme?

c) Lean Startup

- Did you prototype and experiment? If so, how? please give an example
- Was this encouraged by the programme?
- How did your relationships with customers evolve during the programme? Please give an example.
- Did you pivot? If so, how?
- Did experiments focused on delivering real value for consumer or data collection for start-up? Please give an example.

d) Effectuation

- How did the mentor network help your company?
- Did you have any input on the mentor selection/ type of workshops? How were they relevant for your start-up?
- Did the other cohort members help? If so, on what matter, how? Please give an example.
- Did the environment in general help? If so, on what matter, how?

e) Business Planning

- Did you have to submit a business plan to attend the programme?
- Did you work on one during the programme?
- If you applied with a pitch deck, what did this include?
- Can we get a copy?

3. Ask if any comments and thanks.

Appendix D: Description of Participants' companies

Table 8 Description of the mentioned companies

Company	Description	Technology
StudyBee	Assisting tool helping students and teachers to facilitate diverse measurements	Tech education
BookBoost	Platform to increase relationship between customers and hospitality establishments	Inter-connected messaging platform
Twiik	Online coaching platform with social elements enabling influencers and coaches to monetise their content, and users to access tailored workouts	Social sport app
United Robots	Artificial intelligence technology transcribing, amongst others, sport news	Artificial intelligence bot
MittMedia	Local news media	Various media channels