BI Norwegian Business School - campus Oslo

GRA 19502

Master Thesis

Component of continuous assessment: Thesis Master of Science Final master thesis – Counts 80% of total grade

Failing to succeed

How can an accelerator facilitate learning from failure?

Navn:	Andreas Gravermoen, Marthe Bjørgan Hjelmås
Start:	02.03.2018 09.00
Finish:	03.09.2018 12.00

Acknowledgements

This master thesis is written through 2017 and the spring of 2018, by two students at BI Norwegian Business School, and ends our five academic years. Throughout our master degree, we have acquired knowledge that we are confident will benefit us in the business community and our future careers. We have acknowledged challenges around organisational culture, learning from failure, innovation, change management, and new venture creation as especially interesting. Based on this, we have chosen to explore how accelerator programs can facilitate learning from failure.

As accelerator programs could be argued to be relatively new and debated concepts we have chosen to contact two major players in Oslo, as well as their participating startups. Thus, we would like to thank the participating interviewees. A particular thanks to the program management of the two accelerator programs who have helped us book interviews and always were available on phone and mail regardless of the inquiry or question.

We would like to extend our deepest gratitude to all the professors that inspired us through these many years, but special thanks go to our supervisor Birgit Helene Jevnaker. Without her patience, steady hand and invaluable guidance through this research, the results and learning outcome of this thesis would not have been as valuable as it became for the both of us.

Abstract

This master thesis aims at exploring how accelerator programs can facilitate learning from failure. Failure, defined as deviance from desired results, has seen a shift in its surrounding literature. Instead of perceiving failure as something to punish and avoid at all costs, an increasing number of researchers now recognise failure as valuable source of learning. Often tacit, learning for failure relies on peer to peer knowledge sharing for the lesson to be transferred. Although these concepts have been explored in more traditional organisational settings, little to no research has explored how accelerator programs facilitate learning from failure. Learning to identify and analyse failure could be a valuable tool even after the startup has completed the accelerator program, but how does Norwegian accelerator programs facilitate learning from failure? To answer this, we have performed an inductive explorative study of two accelerator programs located in downtown Oslo, Norway. Our research revealed that the participating entrepreneurs and facilitators of the accelerator program view failure as a source of learning, but revealed few concrete actions aimed at learning from failure. Our research indicates that there is an imbalance between the perceived focus on learning from failure, and the concrete actions implemented in the accelerator program. In our thesis, we present current practises identified through our study and present new actions accelerator could implement to improve their entrepreneur's capitalisation on failure.

Key words: accelerator programs, entrepreneurship, startups, fear of failure, learning from failure, entrepreneurial learning, knowledge sharing, peer-to-peer knowledge sharing, enablers for learning, hinders for learning, enablers for knowledge sharing.

Table of Content

1. Introduction	1
1.1 Background	1
1.2 Presentation of research question	3
1.3 Presentation and delineation of sub-research questions	3
1.4 Structure of the thesis	5
2. Theoretical background	6
2.1 Accelerator programs	7
2.2 Entrepreneurship	10
2.2.1 Entrepreneurial teams	11
2.2.2 Entrepreneurial opportunities	12
2.2.3 Entrepreneurial learning	12
2.2.4 Startups	14
2.3 Failure	14
2.3.1 Barriers preventing learning from failure	15
2.3.2 Processes enabling learning from failure	16
2.3.3 Failure and entrepreneurship	18
2.4 Knowledge sharing	19
2.4.1 Knowledge sharing in the organisation	20
2.4.2 Knowledge sharing between organisational members	21
2.4.3 Enablers of knowledge sharing	22
2.4.4 Knowledge sharing systems	23
2.5 Summary of theoretical background	24
3. Method	26
3.1 Research design	27
3.2 Research ethics	30
3.3 Case selection	31
3.4 Data collection	33
3.4.1 Interview guide	34
3.4.2 Observations	35
3.5 Data analysis	36
4. Findings	40
4.1 Accelerator program 1	41
4.1.1 Accelerator program	41

4.1.3 Knowledge Sharing474.2 Accelerator program 2504.2.1 Accelerator program504.2.2 Failure534.2.3 Knowledge Sharing554.3 Summary of key findings575. Discussion605.1 How is failure perceived in an accelerator program?60
4.2.1 Accelerator program 50 4.2.2 Failure 53 4.2.3 Knowledge Sharing 55 4.3 Summary of key findings 57 5. Discussion 60
4.2.2 Failure 53 4.2.3 Knowledge Sharing 55 4.3 Summary of key findings 57 5. Discussion 60
4.2.3 Knowledge Sharing 55 4.3 Summary of key findings 57 5. Discussion 60
4.3 Summary of key findings575. Discussion60
5. Discussion 60
5.1 How is failure perceived in an accelerator program? 60
5.1.1 Entrepreneurs and facilitators attitude towards failure 60
5.1.2 Trust and failure63
5.1.3 Peer-to-peer learning from failure64
5.1.4 Knowledge sharing in the accelerator program's ecosystem67
5.1.5 Concluding remarks68
5.2 Which specific actions are identified to facilitate learning from failure? 68
5.2.1 Measuring progress 69
5.2.2 Mentor and partner speed-dating 70
5.2.3 Mentor roundtable 71
5.2.4 Focus weeks 73
5.2.5 The entrepreneurs' workshops74
5.2.6 Social activities75
5.2.7 Concluding remarks76
5.3 What activities can an accelerator implement to facilitate learning from failure? 76
5.3.1 Focus week - learn to identify and analyse failure 77
5.3.2 Interactive KPI or PoC sessions 78
5.3.3 Social activities 79
5.3.4 Entrepreneurs workshop80
5.3.5 Involve startups 80
5.3.6 Enable knowledge sharing and creation81
5.3.7 Deliberate experimentation83
5.3.8 Concluding remarks83
6. Conclusion 84
6.1 Conclusion 84
6.2 Practical implications 86
6.2.1 Focus week – learn to identify and analyse failure 86
6.2.2 Interactive KPI or PoC sessions 86
6.2.3 Social activities 87

6.2.4 Entrepreneurs workshop	87	
6.2.5 Involve startups	87	
6.2.6 Enable knowledge sharing and creation	88	
6.2.7 Deliberate experimentation	88	
6.3 Limitations	88	
6.4 Future research	89	
Bibliography	91	
Appendixes	103	
Appendix 1 – Confirmation from NSD	103	
Appendix 2– Interview guide; startups from current batch	106	
Appendix 3 – Interview guide; startups from previous batch	108	
Appendix 4 – Interview guide; Program managers	110	
Appendix 5 – Definitions of the themes derived from focus coding	112	
Appendix6 – Illustration of the structure of Accelerator Program1	114	
Appendix7 – Illustration of the structure of Accelerator Program2	115	
Appendix 8 - #BeNice Code of Conduct		
Appendix 9 – Preliminarily Thesis Report		

1. Introduction

1.1 Background

Through this master thesis, we aim to provide a thorough understanding of how an accelerator can facilitate learning from failure for its participating startups. Prominent researchers, such as Schumpeter (1934), emphasises that new ventures are the key drivers of economic development, industrial evolution, and innovation, as they are found to transform innovative ideas into profitable products. In line with Schumpeter (1934), Cannon and Edmondson (2005) argue that learning from failure is a source of innovation and development. Therefore, we argue that failure could be one of the most valuable sources of learning for startups, as knowledge derived from failure can lead to improvement of existing practices and critical organisational processes.

In general, startups cause competition, reconditioning of markets and can contribute to job creation (Battistella, De Toni & Pessot, 2017). However, most new ventures fail in the early stages of their life (Dahl and Reichstein, 2007), and few grow to become medium-sized (Kirchhoff et al., 2013). In fact, a concept has been developed to describe the early stages of a new ventures life; where negative cash flows and uncertainty threaten their very existence; the valley of death (Markham, Ward, Aiman-Smith, Kingon, 2010). Patel (2015) argue that 90% of new ventures will never come out of the valley of death, and will down spiral to a final bankruptcy. With such a high chance of failure, how can startups be prepared to learn from the potential challenges they might meet in the future?

Different factors have been studied to explain the survival or failure of new venture creations, and numerous reasons have been developed (Feinleib, 2011). Some researchers argue that how one handles failure can determine the number of opportunities one perceive, and valuable lessons one obtain (Gruber, MacMillan, & Thompson, 2008; Lazear, 2005; Eesley & Roberts, 2012; Paik, 2014; Parker, 2013). For instance, one way to fail fast to learn quickly to obtain novel insight into product development is by experimenting (Cooper, 1990; Kolko, 2015; Ries,

2011; Wickham, 2006). Additionally, some researchers propose that startups who are prototyping on an early stage and demand user feedback on their products have an empirical higher success rate than their competitors who withhold their products until everything is "perfect" (Blank, 2013). By encouraging experimenting and implementing tools to analyse failures, new ventures have shown to be more resilient and adaptive than their competitors (Cope, 2011). Thus, these processes may boost a startup's chance of survival.

However, Cannon and Edmonds (2005) emphasise that the lessons learned hinges on the entrepreneur's ability to identify and analyse failure. Without these abilities, the entrepreneur will not be able to realise the potential learning outcome, or sufficiently dissect and discuss the failure. Further, Cannon and Edmonds (2005) emphasises that the organisation must be curious and willing to work with their failures to learn from them. With this background, our research aims to explore how accelerator programs facilitate learning from failure for its participating startups. The findings will contribute to the field of failure within accelerator programs, and present current practices aimed at learning from failure within accelerator programs.

New venture programs such as accelerators are designed for a group of selected startups to help them fully capitalise on their idea and business model (Goldstein et al., 2015). The fundamental aim of an accelerator program is to facilitate for the startups to quickly scale, together with providing the ventures with the necessary tools and network, to grow during and after the program (Cohen and Hochberg, 2014). For startups to survive the valley of death, we argue that the activities provided through the program hopefully will scale the venture during the program, in addition to giving the entrepreneurs tools and networks that can help the startups grow in the future. Thus, these programs are considered as metaphorical ecosystems by the participating entrepreneurs. Characterised by the informants, the ecosystem is the environment stretching from those resources available in the physical office space of the accelerator program to its surrounding network of actors, such as mentors, partners, and alumni. In this thesis, we will cohere with our informants and use ecosystem in the same sense as they do. We argue this ecosystem to be important in regards to learning from failure, as this network potentially could function as a knowledge pool, where entrepreneurs can

2

use this resource as an arena to discuss their failures. Further, the network can follow the new venture even after the accelerator program has ended. Both the available knowledge and expertise in their built network could increase the startups' chance of passing through the valley of death.

1.2 Presentation of research question

Despite the research done in each of the relevant study fields; accelerator programs, entrepreneurship, failure and knowledge sharing, little to no research has been conducted on how accelerator programs enable learning from failure (Hallen, Bingham, & Cohen, 2016), or research combining the four relevant study fields: accelerator programs, entrepreneurship, failure and knowledge sharing. As mentioned, failure has been studied on each field, but there is still little research of the presence of learning from failure and its mechanics of sharing tacit knowledge within accelerator programs. Most of the research surrounding accelerator programs are relatively new. Therefore, we aim to conduct an exploratory investigation to reveal new insights and contribute to the field of learning from failure within accelerator programs. On this sparse knowledge background, we desire to explore the following research question:

How can an accelerator facilitate learning from failure?

The research question is explorative and will be answered by combining relevant theories of accelerator programs, entrepreneurship, failure and knowledge sharing, with a multiple case study of Accelerator Program 1 (A1) and Accelerator Program 2 (A2).

1.3 Presentation and delineation of sub-research questions

The research question is broad, and the answer can consist of several factors, perceptions, and aspects. Therefore, we have chosen three sub-research questions, to limit and guide the research in the direction of specific actions and activities.

GRA 19502

To investigate how entrepreneurs and the facilitators of accelerator programs can facilitate learning from failure, we will strive to identify how failure is perceived within the program. We know from Cannon and Edmondson (2005) that individual's ability to identify and analyse failures determine how much they potential learn from the possible situation. The ability to capitalise on experiences derived from failure has also shown to be affected factors, such as the organisations need to point blame (Shaver, 2012), cognitive barriers to identify failure (Kvalnes, 2017) and individual traits and capabilities (Gruber et al., 2008; Naussbaum, 2011; Eggers and song, 2015). This research contributes to the understanding of the present attitudes towards learning from failure and may prove as a foundation for the practical implications of this thesis. Thus, the first sub-research question becomes:

(i) How is failure perceived in an accelerator program?

To answer how accelerators can facilitate learning from failure, our research will highlight the current practices of A1 and A2. We will identify specific actions aimed at learning from own and others' failure, as well as initiatives aimed at transferring tacit knowledge between the entrepreneurs, and between the entrepreneurs and the accelerator program's ecosystem. These findings will contribute to the field of failure within accelerator programs, as it identifies current practices. Although our sample consists of two accelerator programs in Oslo, the activities could be useful for accelerator programs outside Norway as well. Further, by identifying the current activities of the two accelerator programs, we identify gaps and limitations in their present practices which drive the suggestions for future initiatives aimed at facilitating learning from failure. Thus, the second sub-research question becomes:

(ii) Which actions and activities are identified to facilitate learning from failure?

Through our explorative research, we aim to identify actions and activates to improve or facilitate learning from failure. Although this study is multiple case study of two accelerator programs in Oslo, we argue that our suggested activities can be relevant for other applications in other regions as well. The practical implications will combine and build on identified practices and the presented theoretical concepts to help accelerator programs improve their entrepreneurs' ability to learn from own, and others failure. Thus, the final sub-research question becomes:

(iii) Which actions and activities can an accelerator implement to facilitate learning from failure?

1.4 Structure of the thesis

This master thesis draws upon prominent research articles in its structure and form. We will first present the research within the four concepts relevant to answering how accelerator programs can facilitate learning from failure. To make sure our research is reliable and trustworthy, we explain in detail our chosen research design and method. After presenting our findings, we discuss how they could help answer our research question, and shine the light on accelerators programs current practices surrounding failure. Lastly, we offer our conclusion and provide this research with practical implications, limitations, and suggestions for future research.



Figure 1. Illustration of the master thesis structure

2. Theoretical background

This chapter provides a thorough overview of the relevant theory used to answer *how an accelerator program can facilitate learning from failure*, as well as a starting point for the conducted empirical exploration. In line with the inductive approach to our explorative multiple case study, this theoretical study was conducted to get an overview of the prominent research within the four concepts – accelerator program, entrepreneurship, failure, and knowledge sharing. These subsections are not exclusive but present many of the relevant theories within each concept.

The first concept described, is the accelerator program. To better understand our research's environment, it is in our best interest to define and understand the concept of accelerator programs. The description contains theories about the purpose of the program, what it provides, how it is structured and its critical benefits for participating startups. We will throughout the thesis refer to facilitators as the employees of the accelerator program who work actively with the startups.

The second theoretical field is entrepreneurship. To define and understand the context of our research question, we will present the prominent research within entrepreneurship. These definitions and descriptions describe the accelerators participants, who are the ones that are intended to learn from failure. The section will cover the definitions of entrepreneurial activity, entrepreneurship, and entrepreneurs, in addition to descriptions of entrepreneurial -teams, -opportunities, -learning and startups.

After presenting the theory surrounding our site and participants, we offer the prominent literature within failure. This section shows the methods, practices, and mechanisms mediating how people can learn from failure. We display this thesis' definition of failure, the hinders and enablers of learning from failure, followed by a section about how some entrepreneurs handle failure. This academic field is essential to answer the research question due to three key reasons. First, the perception of failure can differ for individuals, and a clear definition is therefore

crucial. Second, as the research question investigates how accelerator programs can facilitate learning from failure, it is fundamental to identify both hinders and enablers for learning from failure as these may moderate the entrepreneurs' ability to capitalise on experiences with failure. Third, the program's participants attitude towards, and how they handle, failure is important as it may determine whether they are capable of learning from owns' and others' failure.

Finally, we present the relevant theories of knowledge sharing. In many cases, learning from failure requires transforming tacit into explicit knowledge. We argue that it is essential to explore how participating startups share their knowledge, explicitly failures, with each other and the rest of the ecosystem of the accelerator program. The amount of knowledge sharing shown through our study could indicate how much lessons derived from failure are shared, or how well failures are shared in and outside the participating startups. This section covers the definition of, factors that can affect, and five enablers for, knowledge sharing.

2.1 Accelerator programs

New venture factories and organisations, such as business incubators aimed at helping startups through the valley of death has been broadly studied (Bruneel, Ratinho, Clarysse, & Groen, 2012; Hackett & Dilts, 2004). However, there has been paid less attention to acceleration programs, which are not described extensively in the scientific literature (Cohen & Hochberg, 2014). Without a formal definition of an accelerator program, or even a general prerequisite process for accelerators, different actors with various backgrounds can call themselves accelerators (Cohen & Hochberg, 2014; Frimodig & Torkkeli, 2013). In this paper, accelerators are classified as an organisation or a program which aims to accelerate and develop startups into investment-ready businesses, during a limited time (Cohen and Hochberg, 2014), by offering services together with a supportive peer-to-peer environment and entrepreneurial culture (Christiansen, 2009; Pauwels, Clarysse, Wright, & Van Hove, 2016). Moreover, a group of experienced business people, namely the accelerators employees, provides services such as office space, guidance, mentorship, networking, management services, training, knowledge and expertise (Cohen, 2013; Fishback, Gulbranson, Litan, Mitchell, & Porzig, 2007; Frimodig & Torkeli, 2013; Hallen et al., 2016;

Hochberg, 2016; Kanbach & Stubner, 2016; Malek, Maine, & McCarthy, 2014; Radojevich-Kelley & Hoffman, 2012).

Goldstein et al. (2015) argue that there are five typical stages of an accelerator; *the selection process, the deal, the accelerator program, the completion* and *the alumni program* (Figure 2). *The selection process* is described by investigating and selecting startups (Goldstein et al., 2015; Kanbach & Stubner, 2016). The targeted startups can range from ventures with only a business idea, to startups that have a validated business model and a developed product with initial traction. Investigation and selection occur through multiple channels, such as professional network and social media. *The deal* determines the contractual ties between the startup and accelerator and is not necessarily financial – e.g., funding (Frimodig & Torkkeli, 2013; Goldstein et al., 2015). The non-financial ties could regard assets such as office space, access to company databases, network and mentors.

The program facilitates new ventures to receive hands-on support and gain access to knowledge, skills and entrepreneurial expertise offered by the accelerator's facilitators. Moreover, established mentor networks, workshops, exclusive events, and an alumni network supplement the facilitators with knowledge and expertise (Goldstein et al., 2015). Most programs *complete* with a "demo day", where ventures pitch to a large audience of qualified investors. However, some accelerators do not offer such an event. Instead, they choose to connect startups with investors individually during and after the program (Cohen, 2013; Goldstein et al., 2015; Hallen et al., 2016). Finally, *the alumni program* consists of startups that participated in previous batches. In some cases, the startups receive follow-on funding from investors raising their valuations (Radojevich-Kelley & Hoffman, 2012).



Figure 2. Illustration of accelerator programs inspired by Goldstein et al. (2015)

According to research, the key benefits of participating in an accelerator is the accessible mentors and surrounding network (Bluestein & Barrett, 2010; Katz & Green, 2009). Most accelerator programs provide mentors that are selected based on their level of expertise, experience and desire to help new entrepreneurs succeed. Radojevich-Kelley and Hoffman (2012) found through their research that mentors work with the entrepreneurs throughout the program, dispense advice, and provide valuable feedback based on personal experience as business owners and entrepreneurs. Additionally, networking is suggested to be a key benefit of participating in an accelerator program (Dempwolf, Auer & D'Ippolito, 2014; Radojevich-Kelley & Hoffman, 2012). Networking offers the participants to receive subsequent rounds of funding and increases their likelihood to receive further help from acquired contacts after the program has finished. Likewise, Hochberg (2016) argue that networking is highly essential as it facilitates sharing of information and resources critical to the entrepreneur (Hochberg, Ljungqvist and Lu 2007; Hochberg, Lindsey, and Westerfield 2015).

Miller and Bound (2011) have conducted a study of five known accelerator programs in the US and identified an event, called "Dinners", that focus on sharing and learning from failure. "Dinners" are weekly evening sessions that involve food, but the primary focus is the entrepreneur and/or team's presentation of successes, screw-ups, and the progress they have made during the previous week. Miller and Bound (2011) contend that these sessions are about helping each other to solve specific obstacles, but at the same time contains an active element of competition as their achievements are compared to each other.

The above section presents relevant theories about accelerator programs, how they can be structured and typical activities that might be arranged through the program. The next section presents the applicable concepts regarding entrepreneurship, entrepreneurial –teams, –opportunities, –learning and startups. These definitions and descriptions describe the accelerators participants, who are the ones that are intended to learn from failure.

2.2 Entrepreneurship

A substantial amount of literature within the field of entrepreneurial science (Cunningham & Lischeron, 1991; Shook, Priem, & McGee, 2003). Research from prominent economists and scientists, such as Aldrich and Martines (2001); Ahmad and Seymour (2008); Penrose (1995); Sarasvathy and Venkataraman (2011); Schumpeter (1934); Shane and Venkataraman (2000); Weber (2009), has been crucial for the development of entrepreneurship as a subject. However, it has not been agreed upon one final definition, due to different perspectives within anthropology, economics, social sciences and management (Carland, Carland, Hoy, & Carland, 2002).

As the entrepreneurs are the participants of the accelerator program, it is necessary to choose a definition for entrepreneurial activity, entrepreneurship, and entrepreneurs. Entrepreneurial activity is the innovative action of value creation, through the creation or expansion of economic activity (Ahmad & Seymour, 2008; Penrose, 1995). By identifying and exploiting opportunities, new products, processes or markets, entrepreneurial activity identifies new opportunities and act on these. Moreover, the entrepreneurial activity is not necessarily implying the creation of new businesses, but also intrapreneurship where individuals and/or teams in existing organisations engage in entrepreneurial activities (Ahmad & Seymour, 2008; Penrose, 1995). Although we have chosen a broad definition of entrepreneurship, it is crucial to acknowledge that entrepreneurship is an active process of experimentation in time (Harper, 2008).

The entrepreneurs are those individuals who seek to generate value, through the creation or expansion of economic activity (Ahmad & Seymour, 2008). Hence, the entrepreneurs and or entrepreneurial teams are the drivers of the

entrepreneurial activity. Several concepts are describing the entrepreneur(s). Three apt descriptions are serial entrepreneurs, expert entrepreneurs, and novice entrepreneurs. Serial entrepreneurs are entrepreneurs who previously have exited a business, either by selling or closing, which they at least partly ran and owned, in addition to currently, at least partially, running and owning another possible new business (Hyytinen & Ilmakunnas, 2007). Further, expert entrepreneurs are those who have founded multiple companies and have over 15 years of experience with proven superior performance (Dew, Read, Sarasvathy, & Wiltbank, 2009). Novice entrepreneurs are those entrepreneurs that are inexperienced and recently engaged in entrepreneurial activities.

2.2.1 Entrepreneurial teams

Bacharach (2005) define entrepreneurial team as a group of entrepreneurs with a common goal, which can only be achieved by appropriate combinations of individual entrepreneurial actions (Harper, 2008; Carland, Hoy, Boulton, & Carland, 1984; Bird, 1989; Kamm, Shuman, Seeger, & Nurick, 1990; Olson, 1987). Entrepreneurial teams can differ in several ways. To limit the scope of our research, the relevant dimensions for this paper is; the number of team members, how the team members are arranged within the team, the presence of family members and the nature of their contribution, the timing of members' joining the team, and the teams' communication pathways (Harper, 2008; Kamm et al., 1990).

Moreover, emergent entrepreneurial teams are one of several categories of entrepreneurial teams, identified and developed by Bacharach (2006) and Harper (2008). An emergent entrepreneurial team is defined as a social group that acts together, through entrepreneurial problem solving, to support a common goal – e.g., a shared business idea (Harper, 2008). This means that the members of the emergent teams jointly discover and exploit opportunities that could not be uncovered by each working alone. Research argues that the team members depend on one another for having the capacity to identify and solve a range of entrepreneurial problems, which illustrates how entrepreneurial discovery can be the common result of joint inference and evaluation of creative ideas (Bacharach, 2006; Harper, 2008). Finally, Harper (2008) argue that entrepreneurial

11

GRA 19502

collaboration only can continue if participants think of themselves as members of a team and refrain from continually assessing whether every joint initiative is following their individual preferences.

2.2.2 Entrepreneurial opportunities

Activities related to the creation of new businesses or the development of existing products, services, processes, and markets are a result of opportunities perceived in the environment by the entrepreneur (Hansen, Shrader, & Monllor, 2011; Harper, 2008; Wickham, 2006). We acknowledge that critique has been raised towards this definition (Foss & Klein, 2005), but still find this definition most fitting to our research question. Blundel and Lockett (2011) argue the entrepreneur is essential for exploitation of opportunities; their perception, experience, knowledge, and motivation are decisive when it comes to discovering and responding to new and existing opportunities. Through active learning over time, most entrepreneurs have acquired relevant knowledge that is essential for further success (Blundel & Lockett, 2011). Wickham (2006) argue that the objective of the resources does not matter, but how the entrepreneur uses the resources and continuously adapts to the other eventualities. This involves considering resources as a much broader definition than only physical assets, to imply intangible resources, such as knowledge and reputation, as well as processes that manipulate and benefit from the resources inside and outside the organisation. These resources and processes become a source of entrepreneurial learning (Wickham, 2006).

2.2.3 Entrepreneurial learning

Identification of opportunities through entrepreneurial activity is usually shown through the development of new ideas, and the commercialisation of these (Blundel & Lockett, 2011). According to Wickham (2006), entrepreneurial learning is the process until commercialisation of an idea developed internally in the venture. This process is driven by dynamics and continuous change, due to the scope of the business idea (Blundel & Lockett, 2011; Wickham, 2006). As previously stated, entrepreneurship is a richly studied field, and therefore it is developed several models that illustrate the process from idea to commercialisation.

Currently, one of the most popular approaches is called The Lean Startup (see Figure 3.), and was developed as a way for entrepreneurs to start a new venture with less risk (Blank, 2013; Ries, 2011). The methodology favours experimentation over complicated planning, customer feedback over intuition, and iterative design over traditional "big design up front" development (Blank, 2013). The theory also favours specific tools such as minimum viable product and pivoting. More, lean startup is based on the concept that the ventures that succeed go quickly from failure to failure, all the while adapting, redoing, and improving their original ideas as they continually learn from customers (Blank, 2013). Many other models focus on experimental learning, such as Design Thinking (Buchanan, 1992; Dorst, 2011; Kolko, 2015) and the Stage-Gate Model (Cooper, 1990, 2008). However, as these approaches are relatively similar to each other, we do not find it relevant to our research question to elaborate on these approaches from the perspectives in this present study.

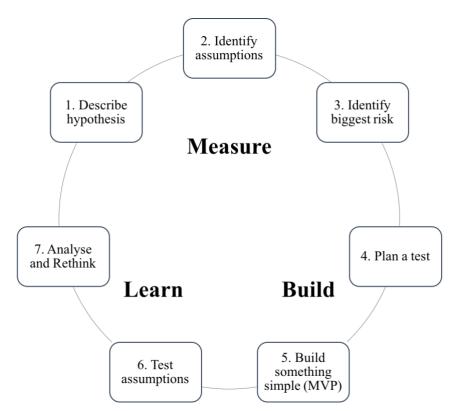


Figure 3. Illustration of the lean startup process

2.2.4 Startups

Given its comprehensive meaning, it is necessary to choose a definition of a startup. Battistella, et al. (2017, p. 82) defines startups as organisations created to search for a business model that is scalable, as the customer base should be easy to increase, resulting in a gain higher than the expenditure for customer acquisition, repeatable in time and profitable in terms of return on invested money. Radojevich-Kelley and Hoffman (2012) argue that startups often struggle with the same obstacles, i.e., funding, misunderstanding of targeted market, and lack of marketing expertise, the inexperience of the entrepreneur or the team, and the entrepreneur or team unwillingness to adapt or mould idea to market needs. As these are fundamental challenges of a startup, Battistella et al. (2017) postulate that the accelerator program's primary focus is on helping their participants overcome these obstacles.

The overhead section display definitions and explanations of the entrepreneurs, who are the ones that are anticipated to learn from failure. Further, we will, in the following chapter, present this thesis' definition of failure, the hinders and enablers of learning from failure, followed by a section about how some entrepreneurs handle failure.

2.3 Failure

Failure can be defined as a deviation from expected and desired results (Cannon & Edmondson, 2005), and consist of avoidable errors, inescapable outcomes of risk-taking, and experimentation (Cannon & Edmondson, 2001). With such a broad definition, failure includes both technical failures, e.g., failures regarding product development or systems, as well as interpersonal failures, e.g., failure to motivate or develop followers. From an organisational perspective, early literature on failure sees the phenomenon as detrimental to the organisation. Managers were concerned with reducing the risk of failures (March & Shapira, 1987), pointing blame (Shaver, 2012), or even hiding their tracks (Goleman, 1996). However, there is a substantial amount of emerging literature suggesting that failure can be an excellent source of learning (Cannon & Edmondson, 2005; McGrath, 1999; Shepherd, 2003). By nourishing an organisational climate that supports failure, one could increase experimentation (Cannon & Edmondson, 2005) and foster a

greater sense of psychological safety at the workspace (Carmeli, 2007). However, research has highlighted several barriers to learning from failure.

2.3.1 Barriers preventing learning from failure

Kvalnes (2017) argues that there are three psychological obstacles that could hinder learning from failure. The first obstacle is the *sunk-cost fallacy*. This refers to an individual's tendency to stay committed to a strategy or project, even though it is not yielding the desired results (Kvalnes, 2017). Two mechanics moderate this effect; *psychological dissonance* – you believe your choice is the right one, and all new information does not concur with your reality, and *loss aviation* – you do not realise you are wasting resources (Kvalnes, 2017).

The second obstacle is *the bystander effect*, i.e., the more people who are witnessing an accident or activity, the less likely an individual would feel obligated to contribute (Kvalnes, 2017). Two factors moderate this effect. The first dimension is *felt responsibility* to contribute, based on the number of people present (Darley & Latané, 1968). If a hundred people are witnessing a person in need, everyone feels a 1/100 of the responsibility to help. This line of thinking allows people to walk away from situations without interfering. The second dimension is *pluralistic ignorance*, which is the tendency to change our judgment, based on other people's judgment of the same situation (Beu, Buckley, & Harvey, 2000; Zhu & Westphal, 2011). Kvalnes (2017) describes a scenario where an individual initially believes that the person in front of him or her is in need of help. If the surrounding crowd is behaving as if that is not the case, the person can mistakenly assume that he or she is the only one present who believes that the person need help, or that the initial belief is false, and walk away with no felt obligation to engage in the situation.

Lastly, the third obstacle to learning from failure is the *confirmation fallacy*, i.e., the tendency to only focus on the information that confirms your current belief (Kvalnes, 2017). The famous "Gorilla-experiment" by Simons and Chabris (1999) illustrate how blind one can become when solely focusing on one task. In the experiment, people are asked to keep track of how many basketball-passes the white group makes, ignoring the black group doing the same task. While the

players pass their ball, a black gorilla enters the picture, bangs its chest, and walks away. Surprisingly, many people do not notice the gorilla at all (Simons & Chabris, 1999). Kahneman (2010, p. 24) further elaborates on this research by postulating that the gorilla experiment illustrates the double nature of this blindness: "We can be blind to the obvious, and we are also blind to our blindness.".

2.3.2 Processes enabling learning from failure

Cannon and Edmondson (2005) propose two main barriers to learning from failure. The two barriers are; *technical* – systems and procedures to capture and share failures in the organisation, and *social* – psychological and cultural inhibitors of learning from failure (Cannon & Edmondson, 2005). However, Cannon and Edmonds (2005) also propose three essential processes to enable learning from failure: *identifying failure, analysing failure,* and *deliberate experimentation*.

Identifying failure is argued to be the utmost important process to learn from failure. Naturally, a company's organisational members must first learn to identify failure, before being able to analyse and learn from the experience. Cannon & Edmondson (2005) stresses the importance of establishing systems and routines to identify and process failures. Usually, large failures are often accompanied by small failures or "warning signs" which could, if identified and addressed, help avoid more drastic failures (Tucker & Edmondson, 2003). Further, Cannon and Edmondson (2005) stress that identifying failure is essential to not lose customers to competing actors (Cannon & Edmondson, 2005), as discontent customers may migrate to competitors without exposing the product's fault. Furthermore, Cannon and Edmondson (2005) argue that the CEO must drive the culture of identifying failures. However, research done by Finkelstein (2004) revealed that CEO's more often blame external factors, and rarely pay attention to his or her contribution to the failure.

Analysing failure is the second process proposed by Cannon and Edmondson (2005) to facilitate learning from failure. They argue that a lesson from failure cannot be derived from experience, without an analysis of the events. Additionally, to motivate organisational members to begin analysing their own

mistakes, one must create a sense of wonder and inquiry (Cannon & Edmondson, 2005). Given the psychological strain of admitting one's fault and fallibility, working with failure could be hard for organisational members (Taylor, 1989). Therefore, Cannon and Edmondson (2005) argue that it is crucial not to lose faith when working with mistakes, resulting in shallow and weak analysis of the transpired events leading up to the failure. Moreover, Cannon and Edmondson's (2005) research argue that analysing failure is essential to expose any biases of the human psychology, e.g., *bystander effect* and *sunk-cost fallacy*, as these mechanisms hinder individuals to identify failures.

Deliberate experimentation is Cannon and Edmondson's (2005) last key process to enable learning from failure. They stress the importance of facilitating true experimental learning, where failure is a natural consequence. This type of true experimentation does not only allow companies to innovate in small-scale productions, but also lowers the barriers to learning from failure (Cannon & Edmondson, 2005). Not just a valuable tool for creating a psychologically safe space for failure, but careful experimentation has also proved to spawn more innovation, products and success for the companies who indulge in such activities (Thomke, 2003). March (1991) is one of the prominent researchers who discuss the difference between exploration and exploitation in organisational learning. His research postulate that there needs to be a balance between resources allocated to the investigation of new opportunities, and exploitation of existing practices (March, 1991). March (1991) emphasise that exploration gives short-term gains as it presents new opportunities for the company (Greve, 2007; Andriopoulos & Lewis, 2009; Li, Canhaverbeke & Schoenmakers, 2008), but self-destructive longterm – as the company never get the opportunity to develop and involve their current product or services.

Today, the research argues that learning from failure is affected by individuals' and organisations' need to point blame in the event of undesired results (Kvalnes, 2017). Edmondson (2011) argues that too many executives and managers have the impression that accepting failure is the start of an "anything goes"-culture in their organisation. According to her, many managers ask themselves "If people aren't blamed for failures, what will ensure that they try as hard as possible to do their best work?" (Edmondson, 2011, p. 50). As a tool to combat the need for blaming,

Edmondson (2011) suggests a spectrum of reasons for failing. This spectrum ranges from *exploratory testing* at one end, to *deliberate deviations* at the other. This arguably separates failures which could be avoided, i.e., forgetting deadlines or obligations, from failure associated with prototyping and exploration. However, the source of the failure is not necessarily accessible to determine (Kvalnes, 2017). Collins (2011) argue that one should try to analyse the cause of a failure, without attributing blame. Collins (2011) concept of *Autopsy without blame* can allow the analysis of the transpired events to identify what caused the failure, instead of searching for who to blame.

2.3.3 Failure and entrepreneurship

Within entrepreneurship, there is a substantial amount of failure (Patel, 2015), but the media frequently showcase successful entrepreneurs who have failed time and time again without resignation (Ånestad, 2018; Rødfoss, 2017; Giske, 2017). One could argue that an equally important aspect of learning from failure is learning to handle and process failure. Drawing knowledge from the field of social studies, Nussbaum (2011) argues that one needs to shift the attention from solely focusing on results, to what an individual is actually capable of doing and being. Research claims that serial entrepreneurs are more likely to learn from their earlier experience than first-time entrepreneurs (Gruber, MacMillan, & Thompson, 2008; Lazear, 2005), and thereby achieve increased performance in their subsequent ventures (Eesley & Roberts, 2012; Paik, 2014; Parker, 2013). Zhang (2011) argues that serial entrepreneurs have a higher chance of success given their acquired skills and social network. However, Eggers and Song's (2015) research found that the serial entrepreneurs who attribute their failure to internal factors, e.g. decision making, and managerial style, where more likely to be successful than those who blamed external factors, e.g. market volatility. Further, Toft-Kehler, Wennberga, and Kim (2014) found that only expert entrepreneurs benefitted from positive experience-performance, while novice entrepreneurs may perform increasingly worse due to their inability to generalise their experiential knowledge accurately into new ventures.

By learning to cope with failure, research suggests one can increase one's selfefficacy, thereby being more resilient and optimistic towards other challenges at work (Bendura, 1977; Kelley & Kelley, 2013; Pajares, 1996;). However, there seems to be little to no research pointed at how accelerator programs have activities or practices that help startups cope or learn from their failures. Given that startups often experiment to find their edge in the market, success could hinge on how well they learn from their own, and others, experience (Blank, 2013).

The previous chapter display this thesis' definition of failure, the hinders and enablers of learning from failure, followed by a section about how some entrepreneurs handle failure. As the research shows, learning from failure could be mediated and moderated by many factors and mechanisms. Further, we would argue that many lessons derived from failure are tacit. To answer how an accelerator program can facilitate learning from failure, we, therefore, find it necessary to look at the theory surrounding how tacit knowledge can be shared among entrepreneurs. Thus, we will review the theory regarding knowledge sharing.

2.4 Knowledge sharing

Knowledge sharing is a valuable source of competitive advantage (Davenport & Prusak, 1998). In an increasingly competitive economy, organisations who share their knowledge make sure expertise and experience transfer from experts to novices (Hinds, Patterson, & Pfeffer, 2001). Not only does it help generalise knowledge throughout the organisation, but knowledge sharing has also shown to affect to which degree organisational members can apply knowledge across functions and innovate (Jackson, Chuang, Harden, Jiang & Joseph, 2006). Therefore, one could argue that organisations which have high levels of knowledge sharing, also share lessons derived from failures. We argue that the concept of knowledge sharing, also known as knowledge transfer (Tangaraja, Mohd Rasdi, Samah & Ismail, 2016), better fit the investigated research question. Although concepts such as peer-to-peer learning and organisational learning could also be reviewed, the authors argue that these are too narrow, and do not adequately explain all dimensions of an accelerator program.

Researchers struggle to find consensus around the difference between knowledge and information. The most prominent distinction is that information is just "a flow of messages" (Nonaka, 2000), while knowledge also includes a sense of "knowhow" (Kogut & Zander, 1992). Further, Alavi and Leidner (2001) suggest that knowledge sharing systems differ from typical information systems given how they contain more valuable and unique information. Cummings (2004) states that knowledge sharing is the provision of task information and know-how to help others, collaborate with others to solve problems, develop new ideas, or implement policies or procedures.

2.4.1 Knowledge sharing in the organisation

When discussing how to facilitate knowledge sharing, one must examine the antecedents of such behaviour. De Long and Fahey (2000) discovered that the organisation's values and practices had to be supportive of knowledge sharing for new technological infrastructures to be successfully implemented. Their findings suggest that organisations need to be prepped to create a culture of sharing knowledge. This has implications for many startups who swear to secrecy around their ideas and practices, making it harder for them to fully engage in knowledge sharing activities. Further, one of the most discussed cultural dimensions that influence knowledge sharing is trust (Butler, 1999; Lin, 2007). Among the research, trust is viewed as a dimension that reduces the adverse effect of perceived costs on knowledge sharing (Kankanhalli, Tan, & Wei, 2005), and the firm's capability of knowledge exchange and combination (Chiu, Shu & Wang, 2006).

Research has shown that an organisational climate that supports competition, raise barriers to organisational trust, ultimately compromising the level of knowledge shared in the organisation (Schepers & Van den Berg, 2007). However, research done by Bakker, Leeders, Gabbay, Kratzer, and Van Engelen (2006) examined how the three dimensions of trustworthiness, i.e., capability, integrity and benevolence, affected knowledge sharing. Bakker et al., (2006) research showed that individuals tended to share more knowledge with the team members they recognised as honest and fair (integrity), than the team members they perceived to be talented (capability). It is also worthwhile to mention that interpersonal trust is

dynamic, and not static (Colquitt, Scott & LePine, 2007), and that building trust hinges on the nature of the individuals' relationship (Vanneste, Puranam, & Kretschmer, 2014), and perceived risk of unrequited social exchange (Molm, Takahashi, & Peterson, 2000).

Additionally, knowledge sharing seems to be linked with reciprocity. However, the research has been inconclusive. On the one hand, Chiu et al. (2006) found that a norm of reciprocity was positively associated with an individual's knowledge sharing. On the other side, Wasko and Faraj (2005) found the relationship to be negative. Wang and Noe (2010) suggest that the inconsistency seems to be contingent on factors such as participant's personality and perceived usefulness in the community. Kankanhalli et al. (2005) found that when individuals attribute their community with strong prosocial-norms, they are more likely to return the favour and share their knowledge with the other community members. Further, researchers argue that incentives and rewards could drive knowledge sharing, but the results have been mixed (Bock, Zmud, Kim & Lee, 2005; Kim & Lee, 2006). While some papers have proposed that performance-based pay systems have shown to increase knowledge sharing (Kim & Lee, 2006), other researchers found that extrinsic rewards had negative consequences on knowledge sharing (Bock et al., 2005).

2.4.2 Knowledge sharing between organisational members

Further, startups consist of one or more entrepreneurs with their individual traits, which could affect their level of knowledge sharing. While some view individuals as predisposed to certain work attitudes and behaviours (Judge & Bono, 2001), only a few studies have examined the role of an individual's personality and disposition in knowledge sharing (Wang & Noe, 2010). Some researchers point to the fact that an individual's sharing of knowledge could be reduced due to a sense of losing power (Gupta & Govindarajan, 2000). Power derived from expertise, i.e., the authority gained by convincing society that one has access to information only reached through his or her specialised skills and set of general potential utility (Reed, 1996). However, Wang and Noe (2010) point out that sharing knowledge also gives the impression that you have a substantial amount of information, which would arguably enforce his or her expert power in that society.

Further, research has also discussed how employees could feel empowered by being a source of novel problem solving and contributing to progress, increasing their motivation to share knowledge within the organisation (Husted & Michailova, 2002). Concerning minority status, Ojha (2005) showed through the similarity-attraction paradigm that team members who considered themselves a minority were less likely to share knowledge with other team members.

Research suggests that knowledge sharing is affected by the nature of the ties among the individuals within a social network – namely the quality and helpfulness of the information (Chiu et al., 2006; Cross & Commings, 2004; Hansen, 1999; Reagans & McEvily, 2003; Wasko & Faraj, 2007). Further, Granovetter (1983) and Perry Smith (2006) both discovered through their research solid indications that strong ties between the nodes in the network involve high emotional closeness. Furthermore, Reagans and McEvily (2003) elaborate on this point, arguing that these strong bonds are highly related to ease of knowledge transfer. In sum, there seems to be a consensus around how the network connections and the associated social capital can facilitate knowledge sharing within a community of practice (Kanhanhali et al., 2006; Nahapiet & Goshoal, 1998).

2.4.3 Enablers of knowledge sharing

Researchers Von Krogh, Nokana and Ichijo (2000) have written about the challenges and enablers of knowledge sharing and creation. In their research, they postulate that knowledge can only be enabled and not managed, meaning that an organisation's primary aim should be to support knowledge sharing and not control it (Von Krogh et al., 2000). Von Krogh and his colleagues (2000) emphasise five enablers to knowledge creation; instil a knowledge creation – define what you ought to know for the future, manage conversation – how to support and facilitate for fruitful discussions, mobilise knowledge activists – identify and inspire agents of knowledge sharing, create the right context – fostering stable relationships and effective collaboration, and globalise local knowledge – how to spread the knowledge throughout the whole organisation (Von Krogh et, al., 2000).

2.4.4 Knowledge sharing systems

To understand how knowledge can be archived and spread throughout the organisation, we can consult the theory surrounding knowledge sharing systems. Alavi and Leidner (2001, p.114) define knowledge sharing systems as a class of information systems applied to managing organisational knowledge. These systems are typically associated with platforms such as document- and content management systems, groupware, e- systems, or intranet infrastructures (Maier & Hadrich, 2006). Alavi and Leidner (2001) propose that there are three common applications of knowledge management systems; The coding and sharing of best practices – internal benchmarking and transferring best methods, the creation of corporate knowledge directives – mapping of internal expertise, and the creation of knowledge networks – enable knowledge sharing between experts in the organisation. While some research critique knowledge management systems (Malhotra, 2004; Jannex, 2008), a study by Gezeau (1998), referred to by Alavi and Leidner (2001), reviled that approximately 70% of all respondents believed that their organisations best knowledge was inaccessible and that their mistakes were reproduced several times. Gezeau (1998) research nourishes our claim that knowledge management and knowledge sharing could increase learning from one's own and colleagues' failures.

These knowledge sharing systems hold many similarities with other online communities, such as Reddit, 4Chan, and OpenIDEO (Fuge, Tee, Agogino & Maton, 2014). Within these online communities, Fuge et al. (2014) discuss how to reward contributors with trophies and the ability to achieve higher social status through ranking. Through awarding behaviour as frequent commenting and publishing, the user of the community can achieve trophies that are displayed on their profile site within the community, for everyone to see (Fuge et al., 2014). These mechanisms have managed to make online communities connect people from all over the world, and helped them share valuable knowledge, insight, and research – mostly for free (Preece, 2000).

2.5 Summary of theoretical background

To answer how an accelerator can facilitate learning from failure, we have discussed the four relevant concepts – accelerator programs, entrepreneurship, failure and knowledge sharing. Given our inductive research approach, this chapter was meant to provide an overview of the prominent research surrounding these key concepts. This work will aid us in our research to help explain and discuss the findings of this current research. Although not exclusive, the following theories are the essential theories used to give us valuable insight in advance of our research.

First, to understand the environment of our research, we have presented some of the theory surrounding accelerator programs. Among the literature, we have studied the aim and goal of an accelerator program based on the research of Cohen and Hochberg (2014). Drawing on Goldstein et al. (2015) typical stages of an accelerator program, we have explored how most accelerator programs operate. Further, we have shown how the different actors of the accelerator program influence and assist startups in their growth process. This prominent research, among other, gives an insight into the leading research defining the site of our research

Second, we explored the context of our master thesis – entrepreneurship. In this part, we used the research of Ahmad and Seymour (2008), and Penrose (1995) to understand what we define as an entrepreneur. Further, as startups often consist of one or more entrepreneurs, we have used the research of Bacharach (2005) to understand what we mean by entrepreneurial teams. To comprehend how entrepreneurs capitalise on perceived opportunities, how they learn, we draw on the research of Blundel and Lockett (2011) and Wickham (2006). Lastly, we review what separates a startup from an organisation, and base our definition of this concept on the work of Battistella et al. (2017)

When we have presented the research surrounding our environment and context, we dive into the prominent research within this currents research's concept of interest – failure. Kvalnes (2017) offers an insight into some of the known barriers to learning from failure. We explore cognitive and psychological hinders that moderate the entrepreneur's ability to learn from own and others failures. Further,

we draw in Cannon and Edmondson (2005) three strategies to learn from failure; identifying failure, analysing failure, and deliberate exploration, to understand how an accelerator program potentially could facilitate learning from failure. Lastly, we looked at how failure can be perceived and handled by the entrepreneurs. Drawing on prominent research conducted by Kelley and Kelley (2013), we get an insight into the mechanism that may affect an entrepreneurs ability to process and capitalise on failure.

Finally, we look at the literature surrounding knowledge sharing to understand how tacit lessons derived from failure can be shared among the entrepreneurs of the accelerator program. Among the research, we review Kankanhalli's et al. (2005) and Reagans and McEvily (2003) findings regarding trust and knowledge sharing, in addition to Chiu et al., (2006), Reeds (1996) and Taylor, (1989) barriers to sharing knowledge among organisational members. Lastly, we discuss Von Krogh's et al. (2000) enablers for knowledge sharing and creation, to get a basic understanding of how the facilitators could facilitate knowledge sharing in the accelerator program.

This information provides us with a basic understanding of the environment, context, and concepts relevant to exploring how an accelerator program can facilitate learning from failure. In the next chapter, we will present how we constructed our research and how we gathered our data.

3. Method

This chapter systematically describes the research method. Starting with the research design, followed by case selection, data collection, analysis, and research ethics. Overall, the methodology takes inspiration from the grounded theory approach developed by Glaser and Strauss (1965). Grounded theory is a general methodology for conducting qualitative research efficiently, effectively and developing an argument that is based on systematically collected and analysed data (Charmaz, 1996; Strauss & Corbin, 1994).

We want to emphasise that the research process has been continuous, not linear, where the research phases have been changed during the exploration (see Figure 2. for illustration of the research process). For instance, when the data was collected and analysed, we found new, unexpected theoretical insights which encouraged us to go back and elaborate on our literature review. After that, the review gave us new understandings of some practices and theories that we should further investigate. A good example could be that we started with getting a brief overview of the relevant theory to understand fundamental concepts. These theories were accelerator programs, failure, and entrepreneurship. After collecting and analysing some of the data, we saw that our theoretical background failed to address how lessons learned from failure was shared within the accelerator, and therefore included the literature surrounding knowledge sharing.

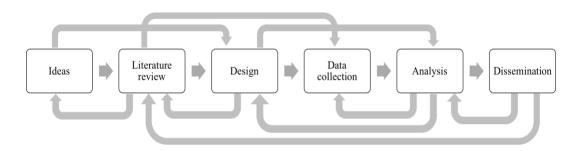


Figure 2. Illustration of the continuous research process of the master thesis, inspired by Berg (2007)

3.1 Research design

How an accelerator facilitates for startups to learn from failure is primarily unknown yet. Therefore, we chose an inductive exploitative multiple case study approach, as recommended by Yin (2009). The benefits of multiple case study have been illustrated in prior research, stemming primarily from their information richness of phenomena in its context, together with the ability to answer how and why questions (Eisenhardt, 1989; Ellram, 1996; Yin, 2013). Further, a multiple case study will allow researchers to analyse within and across settings (Baxter & Jack, 2008). This approach allowed us to examine cases to explore expected similar or contrasting results, as recommended by Yin (2009).

Conducting a multiple case study were considered to be the most appropriate approach due to the following reasons. First, accelerators are in an exploratory stage, and even less is known about how they assist startups in learning from failure. This research on how an accelerator can facilitate learning from failure is therefore in a nascent state, making case studies an ideal methodology (Bryman & Bell, 2015; Gibbert et al., 2008).

Second, case study research is suitable for complex cases, where exploration of the phenomena in question would be too complicated to investigate through other research designs (Yin, 2009). For instance, we argue that cross-sectional research design would not allow us to reveal factors and behaviour that is blind to the informant. As the study aim at investigating how accelerators can facilitate learning from failure, the findings can be influenced by several factors in the real-life environment and the social world. By using the case study design, we can explore these factors.

Third, the comparison of the two accelerator programs in this current study grants a better understanding and more accurate arguments of how an accelerator can facilitate learning from failure. As explained in chapter two of this thesis, accelerator programs might vary in their structure and content. Therefore, comparing and studying two cases are the suitable approach for revealing and identifying the actions and activities that can be held by an accelerator program. A multiple case study could indicate that the findings are more reliant as they are found in several cases, and not only one.

27

Finally, a case study design also enables the possibility to check for validity, reliability, and trustworthiness of responses due to the nature of personal communication and experienced interviewers (Bryman & Bell, 2015; Lincon & Guba, 1985). An overview of actions, which were used in each stage of this study to enhance trustworthiness, is provided in Table 1.

	Research phase				
Validity/reliability criterion	Design	Case selection	Data collection	Data analysis	
External reliability; refers to the degree in which a study can be replicated	Sampling within predominantly direct and indirect spend firms Conduct a nested approach	Clearly describe case firms and contextual factors	Not applicable	Theory triangulation	
Internal reliability; refers to the degree in which the researchers arrive at the same understanding	Develop case study protocol Establish a truthful research framework	Record sampling criteria in case study protocol	Developed interview guide in collaboration with supervisor Develop a case study database	Triangulation of multiple data sources Key informants review the preliminary case study report	
Internal validity (Credibility); refers to the degree in which the finding and its developed theoretical concepts are significantly related	Establish a theoretical framework prior to data analysis	Selection based on theoretical sampling	Record factors that might serve as alternative explanations Explore theory Customise the interview guide with the informants	Involve author and supervisor, who did not gather data Conduct coding checks Triangulation of multiple data sources	
External validity (Transferability); refers to the degree in which findings can be generalised across social settings	Adapt constructs from previous empirical works to the field of learning from failure	Interview two facilitators from both cases	Provide the questionnaire to all interviewees before the interview where necessary	Pattern matching Provide chain evidence	

Table 1. Measures taken to ensure the validity, reliability and trustworthiness of the research. The

criterion used is inspired by Bryman and Bell (2015), Lecompte and Goetz (1982), and Lincon and Guba (1985).

Bryman and Bell (2015), Lecompte and Goetz (1982), and Lincon and Guba (1985) discuss the relevance of reliability together with validity and propose several criteria suited to qualitative research. We used the proposed measures to ensure trustworthiness. Although some researchers believe technically proficient approaches often result in uninspiring findings (Fieldman, 2014), it is argued that a grounded theory approach will best help us understand the patterns and actions of the research objects (Strauss & Corbin, 1994). This is because grounded theory is a methodology for conducting qualitative research efficiently, effectively and developing an argument that is based on systematically collected and analysed data (Charmaz, 1996; Strauss & Corbin, 1994)

We developed the current study as it followed, rather than having it thoroughly planned before beginning the data collection. With this strategy, we allowed ourselves to pursue the most exciting and relevant data. This approach is argued to be active and influential because it includes constant comparison, the systematic asking of generative and concept-relating questions, theoretical sampling, routine coding procedures, suggested guidelines for attaining conceptual density, variation, and conceptual integration (Strauss & Corbin, 1994). However, to ensure the internal validity and credibility of our findings, we explored the theory in advance and established an inspirational theoretical framework before the data analysis.

As many factors contribute to learning from failure, an inductive perspective reconciles well with an exploratory approach, as it may minimise initial biases towards the research and let us explore the phenomena we discover during the data gathering (Alvesson & Sköldberg, 2009). More, grounded theory methods consist of a set of inductive strategies for analysing data. Hence, we started with individual cases, incidents or experiences and developed progressively more abstract conceptual categories, to explain, understand and identify patterned relationships within the data (Charmaz, 1996; Strauss & Corbin, 1994). This will be further elaborated on in the section *3.4 data analysis*. Finally, it is acknowledged that established theories may have influenced the data gathering, but might also allow us to dive further into the insight provided by our informants. For instance, when we briefly reviewed some of the theories before data

collection, we used this knowledge to as an inspiration in our questions and probed recognised concepts mentioned by the informants during the interviews.

3.2 Research ethics

To ensure all data, especially personal data, are collected, stored and analysed are complicit of Norwegian law, we conferred the research process with the Norwegian Centre for Data Research (NSD) (see Appendix 1. for confirmation from NSD). We submitted a notification form and practiced the following suggested guidelines during the research. First, a primary contact person was established in each of the accelerator programs, through which we negotiated access to secondary data and details of conduct. In that way, we had close contact with the managers who would let us know if the program was changed or if the startups were uncomfortable with observations or interviews.

Second, all participants in this study contributed voluntarily, which was ensured by implementing two key actions; informed consent and introduction of research. The informed consent was obtained before the interview and or observation, as recommended by Cooper and Schindler (2014) to avoid ethical difficulties. This was done through both oral presentations and by written consent. Further, we introduced ourselves to every meeting, interview or observation by explaining the study purpose and use of the collected material.

Third, interview guides and case study protocol were sent to all participants before interviews or observations, to be sure that the participants have the right information about the research and our agenda (Appendix 2-2 for interview guide, and Appendix 9 for preliminarily thesis report). This allowed the informants to withdraw from the study without any consequences, if they perceived the questions as to intruding or personal.

Fourth, transcripts are stored in hard copies and locked in supervisors' office, to ensure that the unprocessed data will not get lost or shared with others. Finally, all participants are anonymised to ensure they are not connected to be identified with personal data or information regarding their company. The accelerator programs are anonymised as Accelerator Program 1 (A1) and Accelerator Program 2 (A2). Likewise, the startups are anonymised as Startup 1-6 (S1-6).

3.3 Case selection

A selection method inspired by Seawright and Gerring's (2008) most similar and interesting differences were used to choose the two cases; Accelerator Program 1 (A1) and Accelerator Program 2 (A2). As the research question aims at answering how an accelerator program can facilitate learning from failure, selecting two cases that both are most similar and have interesting differences is arguably the most trustworthy choice. This is because theories that are established from findings are developed from cases that are similar, but at the same time have interesting differences, which might make it more replicable, which will increase the external reliability of our master thesis (Bryman & Bell, 2015).

	Accelerator Program 1		Accelerator Program 2		
	Duration time	12 weeks	Duration time	12 weeks	
	Location	Oslo, Norway	Location	Oslo, Norway	
	Ending	Demo day	Ending	Demo day	
Most	Period	Spring 2018	Period	Spring 208	
Similar	Ecosystem	Hundreds of mentors and partners available	Ecosystem	Hundreds of mentors and partners available	
	Product/service	Must have a	Product/service	Must have a	
	of participant	product/service with	of participant	product/service with	
	startup	exponential technology	startup	exponential technology Four weeks with 10-11	
	Program structure	12 intense weeks with same startups participating	Program structure	startups participating, finishing with pitch and select day, then choosing five startups to further continue the accelerator program for the next eight weeks	
	Investment Investing NOK Strategy 1,250,00 for 8 % equity		Investment Strategy	Investing between NOK 100.000 to 500.000 for a discussed equity percentage between 5- 12%.	
	Size of batch	Size of batch 12 startups		Five startups	
Interesting differences	Startup phase	Growing, already making money	Startup phase	Idea-stage.	
	Product/service of participant startup	Social startups	Product/service of participant startup	Fintech	
	Team accelerator size	Total of nine facilitators	Team accelerator size	Total of four facilitators	
	Ecosystem	Accelerator only	Ecosystem	Accelerator and incubator	
	Other differences	Require the startups to: (1) have launched a product or a service, (2) have some revenue, and (3) be a team with more than one person.	Other differences	Member of the Global Accelerator Network (GAN)	

Table 2. Illustration the most similar and the interesting differences between the two selected cases

Further, we used a sample-technique for the companies and individuals interviewed and observed, called theoretical sampling. Theoretical sampling is a form of purposive sampling, where researchers strategically sample cases to ensure the sample is relevant to the research question (Bryman & Bell, 2015). This technique was considered to be the most reliable sampling method for this master thesis because of the following reasons. First, data collection is driven by concepts from theory and making the comparison, whose purpose is to go to sites and/or individuals that will maximise opportunities to discover variations among ideas (Bryman & Bell, 2015), are the critical foundation of this thesis. Second, with this sampling method, sites and/or individuals are selected because of the relevance to the research question (Charmaz, 1996; Strauss & Corbin, 1994). Third, the theoretical sampling approach is an ongoing process that entails several stages and advocates that the researchers sample regarding what is relevant and meaningful to the theory used in this thesis (Coyne, 1997). Finally, theoretical sampling is encouraged by researchers in the context of qualitative data analysis (Bryman & Bell, 2015).

In accordance with Bryman and Bell (2015), we chose to conduct the theoretical sampling later in the research to ensure that we already had defined relevant issues, in addition to facilitating for significant data to emerge. Theoretical sampling encourages to collect further data that identify critical problems in the research by specifying them explicitly, and by recognising their properties and parameters. The sampling was purposefully selected to provide a wide range of perspectives, both from the accelerators internal and external sources. The natural option was to choose the accelerators employees to get an insight into the activities planned and their thought of how the accelerator facilitate for learning from failure. Further, interviews with startups from both the current and previous batch were conducted to collect their experiences and viewpoints of the accelerator program.

Finally, to ensure theoretical saturation, a second employee from both A1 and A2 was interviewed, which did not add significant insight on top of what had already been discovered, yielding it unlikely to derive new considerable insight from the conduct of further interviews. As we collected data simultaneously with data

analysis, the danger of managing volumes of general, unfocused data that both overwhelm and did not lead to anything new, was avoided. In that way, we could follow up on topics that were explicit in one interview or observation and remain implicit or absent in others (Charmaz, 1996; Glaser and Strauss, 1967).

3.4 Data collection

Data collection took place over three months in spring 2018, at the time both of the accelerators were operating. We collected the primary data through interviews and observations. Typically, the first interviews were conducted in person, later follow-up interviews with the informants were conducted via telephone or email for logistical reasons (see Table 3. for key information of interviews). Usually, both authors conducted the interviews, but in some cases, only one of us were present due to reasonable causes. The interviews were held at the participants' workplace to make the participants relax and feel safe (Kvale, 1996), evoke relevant work-life memories (Kristensen, 2004) and encourage more elaborate storytelling (Magnussen, 2004).

With the participants' approval, all interviews were audio recorded and transcribed within two days to not lose any valuable insight. We used audio-tapes to ensure that we were highly alert during the interview, and follow up on interesting points, as recommended by Bryman and Bell (2015). We chose to transcribe the audio-tapes ourselves to learn distinctions of the research participants' language and meanings. Thus, learning to identify the directions of the data and listening closely to the respondents' feelings and views (Charmaz, 1996). As personal contact was established in the initial meetings, we argue that the validity of the results was not affected by utilising phone/email interviews in following interviews.

Secondary data was gathered through provided documents, such as the actual calendar of the program and other material (e.g., presentation slides), and used for triangulation. Triangulation involves using more than one source of data in the study of a social phenomenon to get several perspectives on a concept and thereby ensure trustworthiness of the understanding (Bryman & Bell, 2015). For example, we used the calendar of the program in combination with interviews and

observations to better understand how the accelerator program is organised. By triangulating these three sources, our findings become more trustworthy as the program structure described by the informants is equal to the structure found in the program's calendar and witnessed during our observations.

Interview object	Function of respondent	Interview duration	Interview mode	Comments
Accelerator program	ı 1			
	Program Manager	45 minutes	Personal	
A1	Program Manager	20 minutes	Personal	Accelerator employees
	Operating Partner	20 minutes	Personal	
S 1	CEO & Founder	44 minutes	Personal	Startup in batch spring 2018
S2	CEO & Founder	66 minutes	Personal	Startup in batch spring 2018
Accelerator program 2				
	Program Director	53 minutes	Personal	
4.2	Program Manager	30 minutes	Personal	
A2	Program Manager	20 minutes	Personal	Accelerator employees
	Program Manager	*	Email	
S4	CEO & Founder	33 minutes	Personal	Startup in batch spring 2018
S5	CEO & Founder	21 minutes	Personal	Startup in batch spring 2018
S 6	CEO & Founder	45 minutes	Personal	Startup in batch spring 2017
	10 interviewees	13 interviews/ 447 minutes		

Table 3. Key informants for interviews. * Not counting email response time

3.4.1 Interview guide

As Charmaz (1996) recommend, we developed a systematic case study protocol and a semi-structured interview guide prior and during the period the interviews were conducted (Appendix 2-4 provides interview guides applied in this process). The interview guides aimed at identifying how the participants perceive their accelerator program to facilitate learning from failure. Therefore, semi-structured interviews were considered appropriate as they allowed the interviewees to reply freely (Bryman & Bell, 2015). This approach opened for a smooth flow in the discussion and encouraged the participants to recollect stories of situations where a failure occurred, or they had to deal with failure. Additionally, it enabled the possibility for us to explore exciting insights, curious topics and extract even richer information (Bryman & Bell, 2015; Cooper & Schindler, 2014). The narrative approach allowed us to compare informant stories for similarities, and later code the answers to identify frequent themes (Czarniawska, 2014).

3.4.2 Observations

Several observations were conducted through the period, as observations are argued to be an efficient way to identify factors that are either blind or forgotten by the participants through the interviews (Czarniawska, 2014). By observing the accelerator programs and their key events (events arguably aimed at learning from failure), we gained a richer insight into the underlying norms and procedures of the research sites. The observations duration and activity is displayed in Table 4. When we arranged for an interview to be conducted in each of the accelerator program's location, we used approximately 15-20 minutes observing the culture and climate before the interview. The observations allowed us to confirm findings indicated during the interviews, uncover discoveries, and study the participants in a real-life setting.

Further, we held roles during the observations of participant-as-observer and complete-observer (Bryman & Bell, 2015). The participant-as-observer function was used in contexts where we were asked to contribute to events by the facilitators and used as a technique to establish trust between us and the participants. This role was held for example when we participated in Mentor-Roundtables. The complete-observer role was used in situations where we did not want to disturb or taint the activities, for example when observing KPI sessions. Finally, when observing the culture and climate, we held roles as both participant-as-observer and complete-observer, because we needed to adapt to the social setting.

	Date	Duration	Activity
Accelerator Progr	am 1		
	March 2end, 2018	150 minutes	KPI session
	April 5th, 2018	150 minutes	KPI session
	April 16th, 2018	15 minutes	Culture and climate
	April 23rd, 2018	15 minutes	Culture and climate
	May 31st, 2018	15 minutes	Culture and climate
Accelerator Progr	ram 2		
	April 5th, 2018	240 minutes	Pitch and Select night
	April 11th, 2018	15 minutes	Culture and climate
	April 25th, 2018	15 minutes	Culture and climate
	April 27th, 2018	15 minutes	Culture and climate
	May 1st, 2018	15 minutes	Culture and climate
	May 2end, 2018	150 minutes	Mentor-Roundtable
Total	11 observations	795 minutes	KPI session, Pitch and Select night, Culture and climate, and Mentor-Roundtable
Table 4. Overvier	w of observations		

3.5 Data analysis

The primary analytic phase of the research consisted of coding the data, which is one of the analytic tools used in grounded theory (Bryman & Bell, 2015). Coding is the process of defining what the data describes, and is the essential link between collecting information and developing a new theory to explain the data (Charmaz, 1996). Strauss and Corbin (1998) argue coding as a useful tool for qualitative analysis as it potentially leads to the development of patterns. This makes the data analysis more efficient and structured, as we can compare the findings easier when we examine the actual quotes that relate to the same theme. We started the data analysis with the focused coding of the hard copies of transcribed interviews together with the observations notes (see table 6. for examples of our coding). This was done several times to ensure all relevant findings were coded. Suggested by Bryman and Burgees (1994), it is important to emphasise that we, early in the coding process, defined each of the codes as it would be no misunderstandings when coding the interviews and field notes (see Appendix 5. for definitions of codes). Further, the coding gave a first structure and a total of 33 themes describing the data's content.

The themes and the associated quotes were listed, starting with the theme that was noted most times and ending with the less noted topics. The overview was initially made to give us an impression of the most cited themes, as it would provide us with an understanding of the most mentioned findings. This is following Bryman and Bell (2015), who claim that quantification of qualitative data might make the data analysis and writing up more trustworthy as it gives us an understanding of where the focus lies for the participants. Further, the overview showed eight themes that was only noted one time, these themes were discussed as supplementary to other themes and were all replaced under other topics which were the perfect fit. Finally, an overview of 25 topics was used as the foundation of the findings (see Table 5. for the outline).

Themes	Number of times noted	Source
Activities	28	A1, A2 and startups from both programs
Peer-to-peer sharing	24	A1, A2 and startups from both programs
Past experiences	22	A1, A2 and startups from both programs
Culture and climate	21	A1, A2 and startups from both programs
Measurement of progress	20	A1, A2 and startups from both programs
Industry	20	A1, A2 and startups from both programs
Openness	20	A1, A2 and startups from both programs
Attitudes towards failure	19	A1, A2 and startups from both programs
Maturity	13	A1, A2 and startups from both programs
Humanity	12	A1, A2 and startups from both programs
Diversity	11	A1, A2 and startups from both programs
Definition failure	9	A1, A2 and startups from both programs
Socially	9	A1, A2 and startups from both programs
Handling of failure	8	A1 and startups from both programs
Mentor	7	A2 and startups from both programs
Network	7	A2 and startups from both programs
Mandatory program	6	A1 and startups from both programs
Focus: failure	6	A1 and startups from A2
Alumni	5	A2 and startups from A2
Relevant program	5	A1 and startups from both programs
Example of failure	5	A1 and startups from both programs
Time pressure	4	Startups from both programs
Speed-dating	3	A1, A2 and startups from A1
Legal documents	3	A1 and A2
Confidence/trust	2	A2 and startups from A1

Table 5. Overview of the patterns resulting from the focused coding, the number of times the theme has been identified and the source of the coding, see Appendix 5. for definitions of themes.

After the interviews and observations were coded and the themes listed, we analysed and discussed each case separately, before presenting the findings to our supervisor for feedback. Every document (transcription of interview or notes from observations) was discussed independently with the aim at evaluating the association of the theme noted and the related quotes, as well as going through the data, yet again, to make sure all relevant quotes was coded. It is worth noting that some themes are supplementary, but chosen to be kept that way. An example is speed-dating which is a quote that could be coded as "activities". However, we argue that keeping the individual code is significant, because it shows that this theme was emphasised as an activity that facilitate learning from failure or knowledge sharing. Likewise, mentor, network, and alumni could all be coded as "ecosystem", but it purposely coded as individual themes due to their importance.

Quote	Code 1	Code 2	Code 3
We have weekly meetings with our team and companies where we ask: "Where are we now? What do you need next week? How can we help you as much as possible?" so that they can get the most value out of every week and every day.	Measurement of progress	Program structure	Accelerator program

There are some companies that are relatively mature to be			
startups, because they already earn money, have launched	Maturity	Criteria of	Accelerator
products and team up. For example, one of the companies	Waturity	startups	program
already have a team of 12.			
The perhaps biggest mistake is to develop a product or			
service in isolation. You sit in your own living room or in			
the basement, hold the cards close to the chest, guess the	Definition of	Perception	Failure
best you can, spend a lot of hours and nights making a	failure	of failure	Tallule
product, and then you have a high risk that the product			
will not "hit".			
I think of the mistakes that we have done, one of the			
biggest mistakes that would it from the beginning. We had		Failure as source of	Failure
an approach from the beginning. We knew that we had a	Examples of		
great idea so we basically made a first version but then	failure	learning	Tallule
we'll put it in a store to test it and got feedback from our		learning	
customers that we should change this and this.			
The very many different people who come here when we			
have such a global focus on the companies. For some, the			Knowledge
threshold is to ask for help or admit that you are	Diversity	Trust	sharing
struggling higher than others, and that is something we			sharing
must put low threshold for that to be fine.			
Like, there's been some good advice around fundraising,			
our next steps, stuff to do, and things to avoid. So yeah, I	Peer-to-peer	Knowledge	Knowledge
would say it is very useful to have peers around that are	sharing	transfer	sharing
doing similar stuff.			

 Table 6. Illustration of examples of the coding process

Further, we categorised the 25 codes into six key themes: program structure, criteria of startups, the perception of failure, failure as a source of learning, trust and knowledge transfer. Finally, we categorised these six key themes into three exceeding categories: accelerator programs, failure, and knowledge sharing (Figure 3. illustrating the patterns, and Table 5. showing an example of the coding process). Although these three categories share the same name as the theoretical concepts researched before this study, they are not to be interpreted as recognised theories within each field respectfully. Drawing on Bryman and Bell (2015), the names of our superior categories are findings that take inspiration from general theoretical concepts and provides a visible read thread between the theoretical foundation of this thesis and its findings.

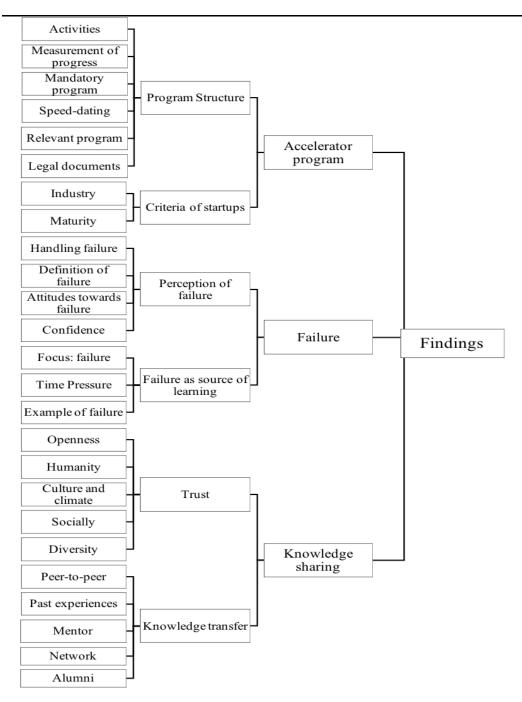


Figure 3. Illustration of the 25 themes (code 1), six key categories (code 2), and the three superior categories (code 3).

In this chapter, we have presented the method used to answer how an accelerator program can facilitate learning from failure. Through transparency around our research's method, design, and data collection, our aim is to increase the trustworthiness of this current study's findings. Further, to ensure that this research comply the rights of our informants, we have taken the necessary precautions, as well as report our research to The Norwegian Centre of Research Data. As a result of our approach to this study's research question, we will now present the findings of our explorative multiple case study.

4. Findings

The findings are presented in a structured and organised way for the readers to easier get an understanding of the data's relevance. A1 is the first case to be introduced, followed by A2. The three sections are structured through a framework with headlines and sub-headlines based on the focused coding presented in the third chapter. Even though the concept of accelerator programs was explained in our theoretical background, it is important for the readers to get an insight into how an accelerator program, much like the two presented in this study, operates, to better understand the context of our presented findings. Accelerator programs aim to accelerate and develop startups into investmentready businesses within a limited time, in these cases during a 12-week period. This is done by offering services, activities and an ecosystem, together with a supportive peer-to-peer environment and entrepreneurial culture.

A table of the events organised by the two studied accelerator programs is provided for the readers to get an early overview of the observed activities (see Table 6). The activities were inductively identified in the present study, and will be further elaborated in the following section.

Activities	A1	A2	Comments
One-on-one follow-ups	Х	Х	A1 uses 15 five in Point of contact sessions
Joint reporting meeting	х	х	A1 uses KPI sessions
Mentor speed-dating	х	х	A2 also has partner speed-dating
Intensive due diligence		х	
Training	х	х	i.e. pitch training
Workshops	х	х	i.e. lean startup
Lectures	х	х	
Mentor roundtable		х	
CTO roundtable	х		
The entrepreneurs workshop		х	
Investor Day	х	х	
Demo Day	х	х	
Pitch & Selection Night		х	
Pitch & drinks		х	
Partner Meet up		х	
		40	

```
Basement party every Friday x
Sausage-lunch x
```

Table 6. Overview of the activities arranged in each accelerator program.

4.1 Accelerator program 1

A1 is an accelerator program arranged in Oslo, Norway. The accelerator was established in January 2017, and the second batch, studied in this research, was operating during the spring of 2018. A total of 12 startups was participating in this second batch. The program has a total of nine employees, or facilitators, who work closely with the startups. The accelerator program invests approximately NOK 1,215,000 (USD 150,000) in exchange for 8% equity, and the startups subsequently gain access to further capital and investors through the duration of the accelerator. The program has no legal documents committing the startups to share, nor contribute, with knowledge or other resources. Further, the accelerator program is a 12-week hands-on program with the aim of scaling the participating companies by providing several activities and arenas for learning (Appendix 6).

4.1.1 Accelerator program

"What the accelerator program is helping with is basic structure, setting your goals, decide what to do and then we meet up to discuss how you should do it and how it is going" - CEO of S1

Program structure

A1 arranges several activities every week, and divide the 12 weeks into "focus weeks" where each week have a theme describing the activities (Appendix 6). For instance, one of the focus weeks are called "hell week", inspired by the book written by Erik Bertrand Larsen (2013), an officer in the Norwegian Army. During this week, the schedule consists of both physical activities during the mornings and interactive events such as "circle of trust". Further, every week consists of sessions, such as Point of Contact (PoC) on Monday, Key Performance Index (KPI) on Friday, and other activities fitting the focus week like pitching sessions. It is also arranged several workshops, lectures, and CTO roundtables where all chief technology officers meet to specifically discuss technological challenges. None of our interviews indicated that A1 uses any specific

methodologies or activities the startups to develop and accelerate. In addition to the weekly activities, the program offers access to a global network of leading mentors and their expertise. During the first week, a mentor speed-dating was organised for the startups to get a team of at least two lead mentors.

"Instead of matching a startup and a mentor because of background/education. You have mentor speed-dating, 15 minutes meeting with about 20 mentors. In the end, you put your references, and they put theirs, and you do your matches. For me, that was amazing. That was the first day in A1. You get one or two mentors, but you also meet a lot of people, but the rest of the mentors are contacts and give you extra contact, I got maybe 70 contacts of that speed-dating. It was super good. It has been the best activity so far. I was super happy." – CEO of S2

One of the essential elements of the program structure is how A1 measure progress. In our interviews, A1's program manager explains that the program consists of both weekly PoC and KPI sessions. The PoC sessions are organised as a one-on-one meeting between the startups and one of the accelerator's employees – the responsible facilitator for that specific startup. The meetings last approximately 45 minutes, and consists of questions concerning how the last week have been and what challenges they have met. Further, the facilitators probe the startups to uncover if they can set up meetings or find people who can help them with their progression. From our interview with the program managers of A1, we discovered that the actual content of the meeting differs from each of the A1 employees, as the facilitators' management style often affects the focus of the PoC session. Additionally, some facilitators use a continuous performance management tool, called 15Five¹, to measure the startups' progress.

"It's just to be able to follow and capture the things they are struggling with." – The program manager of A1

Further, the KPI sessions are arranged every Friday. Drawing on our interviews with the program managers and participating entrepreneurs, we identified that all the A1 employees talked with each of the startups the first week of the accelerator

¹ 15Five is a continuous performance management tool that is used to measure and improve the employees' performance, every week. The employees take 15 minutes a week to answer questions that focus attention on everything from personal productivity to team-wide morale. Thereafter, the managers spend 5 minutes to read and comment on responses. https://www.15five.com/

program. During the meeting, the employees and the startup developed one or more targeted KPI goals, i.e. goals that are quantifiable and measure progress, which should be reached every week throughout the program. In our interviews with the facilitators of A1, they indicated that the KPI sessions has two primary aims. First, KPI targets are used to measure progress from week to week, during the program. Second, the KPI progress during the program is finally applied on demo day to show the startups growth for the investors on demo day. Every Friday, the startups have to present the KPI numbers in front of the other startups and the facilitators. In this current study, we have both participated in several of these sessions. Usually, the issues discussed were: What happened last week? Have the startup reached its KPI's? What is the startup struggling with now or in the previous week? What are the plans for the next week? The meeting is organised as a "show-and-tell"-presentation, where each startup uses an excel data sheet to present their numbers in front of a front facing, seated audience. The observations showed that both the facilitators and the startups somewhat contributing to the discussion.

Our interviews suggest that the startups are encouraged to attend all activities as their theme and core focus is specially chosen by the facilitators based on the general challenges and surfacing needs of the participating startups. The CEO of S2 argues it is a right balance between the activities arranged by the accelerator and individual work time. Likewise, the CEO of S1 says that there are not that many shared activities, and that 80% of their time is used to work with his own business. However, The CEO of S1 also explains that the program is very general. He believes that the startups are so different in terms of maturity (i.e. the lifespan of the startup) and activities, and wished the activities arranged would be relevant for all the participating startups.

Criteria for startups

The program manager at A1 says they exclusively choose companies that make a difference in the world, in one way or another, through environmental and social entrepreneurship. Additionally, they must work with a type of technology that is easy to scale fast, as exponential technologies like AI and blockchain. For instance, one of the companies has an application for food waste, where the

grocery stores or other businesses selling products that can expire, can keep track of every expiry date, limiting food and product waste. However, the area of social entrepreneurship and exponential technologies can be described as immense. Therefore, even though A1 exclusively focuses on these types of startups, their markets, products/services, and scalability are vastly different.

"I would love to find an accelerator with the same kind of companies within the same focus area, but I have not found it yet. I think we are more or less at the same level of maturity in this accelerator program when it comes to going to the market and scaling. But, if you think of the requirements needed to scale for both the other startups and us, they are totally different. For example, other companies need servers and these kinds of thing, which is things that you can get very cheap. In our case, scaling the production means that we need to move from one factory to a new one, and we need to change the production methods. We must move from 3Dprinters to plastic injection modules. For us, the scale of production is this. But for the other startup, it is totally different to scale." – CEO of S2

Further, A1 have some supplementary conditions when selecting the participating startups: (1) the startup must have launched their product or service, (2) the startup must have some revenue, and (3) the startup must be a team. Although targeting reasonably new ventures, the program manager from A1 explains that some companies are relatively mature to be startups.

"Some companies are relatively mature to be startups because they already earn money, have launched products and team up. For example, one of the companies already has a team of 12." – The program manager of A1

4.1.2 Failure

"We're talking very little about "failure" here, it's more about doing something that you realise you could have done or should have done differently, and you'll learn from it and then do it better next time." - The program manager of A1

Perception of failure

Upon assessing A1's participating startups ability to handle failure, the results appear similar. The CEO of S2, mentioned during his interview that he was already used to fail prior to the accelerator program, and that picking himself up and recovering from undesired outcomes have become more comfortable over the years. The CEO of S4, whose company is based on the technology of his master and Ph.D. thesis, reported that even though he loved his product, he would discard it in a heartbeat if a better product emerged. Meaning that if the technology were to fail, he would move on and not feel any remorse about his inadequate product. Likewise, the participants of A1 revealed during their interviews that their perception of failure has changed over the years based on their experiences.

"I have realised that it is all about just doing something, move fast, and just making your decisions, which sometimes works sometimes it doesn't. I of course still feel failure, but it's like moving up a hill. Things that made me devastated some years ago does not hit me as much today." – CEO of S1

There seems to be a consensus about moving fast and engaging in trial and error exploration. Our findings show the entrepreneurs draw from earlier experience with failure, and use these attitudes to venture forth with their companies. As previously mentioned, they seemingly express as much confidence in sharing their missteps, as they would present their successes. This is further elaborated when asking about the startups' attitude towards measuring progress with KPI's. The interviews indicate that when the startups do not reach a KPI set with the facilitators of A1, they pivot and use the failure as a starting point of change.

"We went to a KPI session and said "I have one good news and one bad news. The good news is that blablabla. The bad news is that the production is going to be delayed, and I do not know have much". I was not afraid of saying that in the KPI session or at the point of contact session." – CEO of S2

From our interviews with both facilitators and entrepreneurs, mistakes and failures seem to mainly be discovered and discussed in the one-on-one PoC sessions between facilitators and startup, and at the weekly group KPI sessions. The PoC sessions happen in close quarters with the startup and one or two predetermined employees of A1, while the KPI group sessions are organised as a presentation, accompanied by a shared google document on a projector. The observations and interviews indicate that these two meetings are the only arenas where failure is explicitly a focus. This is confirmed by the program manager of A1, who recalls no other program elements which directly concerns failure. In one of the interviews, the PoC sessions revealed to have helped S2 to shift their marketing focus from big to medium sized factories after many rejections. Further, The CEO of S1 uses their KPI's to have better control of their progress. Nevertheless, the observations revealed that the feedback given at the KPI sessions does not go in depth on failure to meet KPI targets. Typically, what happened was that a company who had failed to achieve their goal were asked to explain the deviance. However, after the entrepreneur gave their reason, no further investigation into aspects, such as contributing factors or what could be done to correct the KPI, was discussed.

Failure as a source of learning

Given the diversity of the startups' industry and production scale, some startups perceive greater barriers towards learning from failure than others. The CEO of S2, who is working in the sector of solar-energy, states their high costs of production and mistakes hinders them from learning from a trial and errors exploration.

"Our delivery time, our client acquisition time, everything is huge. We don't sell 1000 units per year, but we sell five projects a year. (...) For us it is not that easy, our minimum viable product costs 60,000 euros. Also, our projects are usually around 100,000 euros. If you are selling watches, and the watch does not work, the customer can send a mail, and you could answer "sorry man, we have some problem with our production, we will send you a new watch". But in our case, we cannot do that. If the thing does not work, the guy is not going to call you nicely and ask can you "give me a new?" No, he is going to call and say "My lawyers are on the way, man you f**ked with us, it cost 100,000 euros and is not working. I am losing money already". We cannot afford to have those kinds of problems." – CEO of S2

The notion of high costs related to production is also connected to the short time frame of the accelerator program. The CEO of S2 elaborates in their interview how the time span of only 12 weeks makes it hard for them to test new products or conduct market research. However, when asked if he wanted to extend the program, the CEO of S2 stressed that it is hard for international team members to stay so long abroad from their company and primary market.

The interviews indicate that the startups in the A1, and the accelerator itself, has different definitions and focus on failure. Through the interview with the CEO of S1, the entrepreneur spoke about small failures as part of a journey to become more resilient and daring to take the risk. It would seem failure is a natural and expected part of an entrepreneurs' life. The program manager postulates that there is a consensus among startups that failure is almost a prerequisite for success.

"I think if you have too much focus on failure... Which is something people talk a lot about in the startup community. It is about falling face down in the dirt, and if you haven't crashed two companies, you don't have the foundation to start a good one neither. Which is good, but it becomes a little too black and white. Too much attention on the negative in it. It's much more fun to talk about the times you screwed up and made a fool out of yourself. Then you can laugh about it, and each other that you should not do it in that way, because I did and it sucked." – The program manager of A1

Further, S2 points out that the definition of failure could vary between the individual team members. As he explains, a misstep for the CFO would be in connection with failing revenues, while failure for production would be a faulty product. Personally, the CEO of S2 would regard it as a failure if he does not get the best return on his time and resource investment.

4.1.3 Knowledge Sharing

"The threshold of individual's perception of failure should be extremely low, and you should be allowed to feel a failure in areas that others think this is not really a failure, which is completely human. You should be allowed to share your mistakes, regardless of the degree, and still be respected." – The program manager of A1

Trust

When the program manager explains her attitude towards failure, she unknowingly described the desired climate. This statement is also supported by the participating entrepreneurs, who says they are as confident in sharing their successes as their failures. The CEO of S1 explains that if one startup does not meet their KPI's, the facilitators are understanding and friendly. Further, throughout the interview with the program manager at A1, we got the impression that the facilitators have a lot of compassion for the startups.

"How far can we push the startups? They are startups with goals to scale fast, and we (the facilitators red. am) are measured on our success criteria, investments, money, and investors. However, then we met all these people and the wonderful cultural differences, which we now have so much care and love for." – The Program manager of A1

Additionally, the program manager of A1 expresses the importance of creating a safe space for the entrepreneurs to share and socialise. By arranging social activities, such as Friday-games in the basement and hiking trips, they hope to create arenas where the entrepreneurs can socialise and recreate. She emphases that A1 generally tries to foster a psychologically safe space, but also include activities that are meant to strengthen the relationship between the entrepreneurs – such as the early group training exercises during the "hell week". In earlier batches, these sorts of activities had resulted in two companies starting a new venture together.

"As long as we created the security framework and the environment that enable the startups to connect, thus become friends and share things, so many incredible things happened. In the previous batch, two entrepreneurs went together to start another company. We see that the same is happening now." – The program manager of A1

Knowledge transfer

Although A1 seems to emphasise the importance of creating a space where the startups feel comfortable sharing their knowledge with each other, the interviews with the entrepreneurs suggest that the meaning of this could be lost to the participants themselves.

"In this accelerator, the startups are situated in different countries and are developing very different products/services. For example, we are a foodtech company from Sweden, and it's one other company from Sweden in this accelerator, but they are developing virtual reality glasses. Hence, we don't have a lot of experience to exchange. Of course, there is general knowledge that can be shared as the startups are in the same level of maturity. One time we asked another startup: "Do you know how to do this?" - "No." - "Okay, we don't either." And that was the end of the discussion. For us participating in this

accelerator is more about the energy and the professional environment." – CEO of S1

The CEO of S2 confirms this in their interview, and says that they felt there was more peer-to-peer knowledge sharing in his previous accelerator in Lanzadera, Spain. In Lanzadera, there were up to 80 startups, and five to six startups in the same industry as S2. It would seem the findings indicate that the startup does not see the value of consulting their peers, as they believe they are not capable of helping. The interviews suggest that this is either because the problem is too complicated, or because they are at the same stage in their company's lifespan, where either of them knows how to solve new emergent challenges. The CEO of S2 also stated that they had explicitly pointed out another startup as their best collaborative partner because they were more like themselves in the product, scalability, and revenue. Further, The CEO of S2 discusses the size of the batch as an antecedent of knowledge sharing. In his experience, when S2 was part of an accelerator who hosted up to 80 startups, they felt they had more similar companies of which they could ask for help. On the other hand, The CEO of S2 stated that they believe the challenge with such big batches is the clustering of startups. Namely, similar startups tend to only share with each other, reducing the chance of cross-sectional knowledge transferring.

It would seem from the interviews that the leading knowledge sharing of value for the participants happen between the entrepreneurs' and the program's ecosystem – mentors, network and alumni. The mentor speed-dating initiative matches the entrepreneurs with the mentors who best compliment their company. For example, the CEO of S2 says that he, through the speed-dating, got a lot of help from one of the potential mentors when he described his struggle with manufacturing. Our interview with the participating entrepreneurs suggest that mentors often share their own experience, e.g., accomplishments made possible by failure or luck, and it is the author's understanding that these are the conversations the entrepreneurs feel create the most value. The CEO of S2 estimates that as much as 60-70% of the feedback comes from the ecosystem around A1, mainly the mentors and the mentors' network.

GRA 19502

4.2 Accelerator program 2

A2 is an accelerator and incubator based in Oslo, Norway, targeting startups based on financial technologies (fintech). The accelerator program was initiated in August 2016, and the fourth batch was operating during the spring of 2018. The structure of the program is a bit different, and the 12-week program is divided into two stages (Appendix 7). First, 11 startups are chosen to participate in the program for four weeks. After, a "pitch and select night" is arranged, where the program's partners and facilitators invite five startups to participate for the remaining eight weeks, and a predetermined investment from the facilitators of A2. This structure will from now on be called four + eight program structure. A2 invests from NOK 100,000 up to NOK 500,000 (approximately 12,350 USD to 62,240 USD) per company, typically in exchange for 5-12% equity. These specifics are negotiated case by case in advance, and the program fee equalled 30% of their seed investment.

Further, A2 provides follow-on funding and incubation for the best startups. The incubator, which is within the same office, share the same workplace facilities as the accelerator program. A2 have no legal documents focusing or committing the startups to participate with knowledge sharing. However, they provide a "#BeNice code of conduct" which emphasises all activities to be harassment free (Appendix 8). Moreover, A2 is a member of the Global Accelerator Network (GAN), which provides beneficial professional development, networking opportunities, training, consulting and ongoing support for all its members in more than 30 different countries around the world.

4.2.1 Accelerator program

"I think an accelerator is not an accelerator. We come in many different forms. I like to describe ourselves as a contentious heavy, where the startups are signed up for a lot of sessions." – The Program director of A2

Program structure

Because A2's accelerator program is organised with a four + eight program structure, they have developed a detailed selection process of the first 11 startups. The program director explains in his interview that they usually start with a diagnosis of the company where they ask questions such as: Who are you? What is your idea? What do you already have? The last question is asked to map the fundamentals of the business, which includes if the startup has a name, domain, website, social media channels and if the startup has a co-founder or co-shareholder agreements. After that, A2 arranges legal due diligence, where the startups have a one-on-one meeting with DLA-Piper, a major international law firm specialising in fintech, to see what regulations that is restraining the startup.

When the program is initiated, a total of 11 startups have been offered to participate in the first phase - consisting of four weeks. These four weeks involves intensive due diligence, one-on-one follow-ups, and partner and mentor speed-dating. These events are arranged to get input from all angles about the participating startups. Additionally, pitch training and strategic workshops are organised with homework in between to calibrate the startup's business model. The four weeks are an intense program, where sessions and seminars are held every day. Finally, the first phase ends with an event called "pitch and select"-night, where the final startups are chosen by the partners and facilitators of A2.

"It gives us four weeks to get acquainted with the startups, and the startups get four weeks of calibration, networking, and maturation." - The program manager of A2

After the "pitch and select"-night, the five startups who remain are assigned one lead mentor, in addition to a team of five-six mentors. The second phase includes several workshops, sessions, roundtables, training, and talks. Our interview with the facilitators of A2 shows that they are using methodologies such as Lean Startup to help the startups validate and develop their new venture.

Further, our interview with the facilitators of A2 identified a workshop called the "entrepreneur's workshop", which is a two and a half hour session where one of the startups set the agenda and choose a specific problem that is discussed

between the startups. The particular problem can, for example, be around customer on-boarding processes or going-to-market strategies.

As described, several activities are arranged for the startups to learn and scale faster. The CEO of S6 mentions that the startups are committed to participating in the events. However, some of the startups described some program activities as not relevant or nonspecific. One of the startups thought that it would have been difficult to build a program specialised for every startup, especially in the first part with a total of 11 startups. Several startups argue that some of the sessions should be optional.

"It is expected that we participate and meet up to the activities that are organised. The accelerator has partners who pay for the program and therefore it's important that we show up. For example, if a partner comes to A2 to talk with the startups and then not one entrepreneur is present, that would not work for the accelerator or the partner. It is a commitment to participate in a lot." – CEO of S6

Our findings revealed that A2 has two weekly meetings where they measure the startups progress. One of the meetings is a joint reporting meeting, where each startup talks about their activities and growth during the last week, in front of the other participating startups. Additionally, one-on-one meetings with A2 is arranged for the startups to go through the specific progression of the individual business. For the startups, there are not established any detailed goals. However, before the program, the facilitators of A2 and the startups have a conversation where they decide the overall goals for the startup in the program's first and second phase. Examples of such overall goals in the first phase where identified to be the startups' improvement of their pitch, and development of product- or service demos for the final demo day in the second phase. The CEO of S6 describes the measurement techniques as "very ambiguous documents". When we asked the facilitators why they chose to measure their startups in such a fashion, they argued that they did not want to interfere with the explorative phase most of their participating startups were in.

"We are probably more a motivator than we are a whip because we believe that is needed. Additionally, it's the lead mentors that should push them." – The program manager of A2

Criteria for startups

A2 focus on startups in the fintech industry - broadly defined by the program manager of A2 as the industry related to finance, banking, insurance, alternative finance, real estate, legal, blockchain, AI, data analytics and impact investing. S5 from the latest batch is developing a database for other fintech companies. It is described as the white pages or Google of the whole fintech landscape, and has the mission to help banks pick providers or partners that they want to work with. One of the other startups we interviewed, S4, is building a marketplace that provides a platform where all small business owners can get everything they need from the banking and finance industry in one place, at competitive prices. This finding can be argued to show that the startups are quite similar and might desire the same partners and customers. However, from our interviews it seemed that this was not how the startups' perceived the climate of the accelerator program.

"We're not competitors in the sense we are not doing the same stuff. Our customers are completely different. (...) its way more clever if we are helping each other." – CEO of S5

Moreover, the startups enlisted into A2 are usually businesses in the early stages of developments, mainly the idea phase. The program director of A2 explains that several entrepreneurs or teams enter A2 only with an idea, a concept or an assumed problem. The facilitator's primary focus is to help concretise the problem, and ensure the solution or product has actual market demand. In their present batch, only two of the startups were started approximately two years ago, while the remaining startups are still on the idea-phase.

"We have had startups here that have entered the program with an idea on a PowerPoint slide or a napkin." – The program director of A2

4.2.2 Failure

"Now and then something that feels like a failure is actually an enormous opportunity. It's important to not look at the failure. It is something about everyone failing all the time. Like I used to say to those I worked with: "If you're not making mistakes, you are not trying hard enough"." – CEO of S4

Perception of failure

From both A2's and the startups' side, there seems to be a shared perception of failure as something that can spawn competitive advantages and function as a potential source of learning. Some startups expressed that they were surprised, because they have not met as many failures as they expected. Others are used to making mistakes, and prefer to use failure as a source of learning. For example, the CEO of S5 says he would rather have ambiguous goals that set him up for failure and then learn from it, instead of being comfortable with the tasks ahead.

During our interviews with the participating entrepreneurs, we found that the degree of determining if the cause of the failure was due to internal (e.g., personal analytical competence), or external, (e.g., marked volatilities) differed between the startups. While some excused their failures by exclaiming "That's just a part of life", others showed signs of retracing their steps and investigating their routines. For instance, the CEO of S4 have experience from previous startups and expresses, in the following quote, the concern of the external causes of failure.

"Unexpected things are affecting, things that you don't have control over. For example, one time I was leading a telephone startup and the only thing that controlled if the investors and board would launch the products was the oil price. So there are always such unexpected things that can come, especially when you work with a startup. What I've learned is that you need luck." – CEO of S4

On the contrary, one of the startups from the previous batch seems to have a more serious relationship with failure. The CEO of S6 has previous experience from a failed company, and often present his experiences through presentations and stories to others. He says through the interview that failure could be defined as "when you did something wrong, when you knew what the right was", which might imply that he blames the internal causes. However, during the interview, we get an impression that he feared a second startup failure, and therefore prioritised faster learning from the most serious failures.

"If you find out something is wrong, you can't wait a week. Of course, it must be fixed immediately. The first time we identified a failure, it took a week before it got fixed. We reorganised our "flow" and implemented what we now call a "hotfix", which is prioritised above all other tasks until it's fixed" – CEO of S6

Failure as a source of learning

Although seeing failure as an opportunity to learn, the interviews show that none of the entrepreneurs, nor the facilitators of A2, could recall any actions explicitly aimed at learning from failure.

"We haven't really had sessions where we talk about failures and what you learn. I mean I lead my pitch with a failure, a business that I tried to build but didn't work. But it's nothing we have talked about. But I would be happy to share." – CEO of S5

However, the startups also state that the facilitators are organising workshops on methodologies such as Lean Startup, which is methods that use frequent testing and failing to learn quick. However, not all entrepreneurs share the same perceived ability to learn from experimentation and failure. On one hand, the CEO of S5 says the facilitators of A2 are pushing them to go out and test things. On the other hand, the CEO of S5 expresses his concerns regarding the time period of the program and argue it to be difficult to really learn from failure during 12 weeks.

"I think it is too short of a time to do anything more. How can you learn from failure within three months? Failing really quickly is hard. Which I guess they are encouraging you to do. Build products and test things, which is how you fail quickly. But I think it's... Again, the window is to short. It takes quite some time to do anything." – CEO of S5

Lastly, from the interviews, there seems to be a perceived trade-off between failure as a source of learning or demotivating. "It's not the intention to kill the enthusiasm here either" states the CEO of S4, suggesting that a strong focus on failure could potentially affect the startups drive and self-efficacy.

4.2.3 Knowledge Sharing

"It's valuable to be in a lecture, but it's even more valuable to talk with the other participants after the lecture because you're talking about the practices and your case concerning the topic. It is in the breaks that you will meet people that can further help you. It works like that here, in the accelerator program, as well." – CEO of S6

Trust

Given A2's selection after four weeks, we were interested in finding out if this affected the climate in the accelerator program. When asked if their four + eight week structure impacted the level of cooperation between the startups, our findings showed the selection after four weeks had little influence. However, S5 pointed out that some of the startups used the weekly group catch-ups to inflate their progression to appear more successful.

"The first month was obviously slightly competitive. You are competing against 11 companies in our batch. You are competing against everyone else to get a spot, but not that we are through it's much more collaborative." – CEO of S5

Yet, the climate and culture at A2 are understood by our interviews and observations as quite friendly. Through observations of "pitch and select night," we saw the participants were motivating and encouraging each other. Likewise, during observations of jointly reporting meetings, positive and encouraging words were expressed. Several of the startups also state this through their interviews. Additionally, The CEO of S4 emphasises the facilitators understanding of the startups' situation and appreciates their friendliness.

"The thing that is positive about A2 is that the facilitators have experience from entrepreneurship themselves. It is like we are in the same boat. They know what it's like to quit the job and go into the unknown. And that is good." – CEO of S4

Knowledge transfer

Our interviews suggest that the most novel and valuable knowledge sharing happens between the startup and its mentors, and not necessarily between the startups themselves. The CEO of S5 described in his interview the problem with entrepreneurs not being committed to other startups challenges, consequently affecting the quality of the contribution.

"We have strategic workshops with mentors which are really useful, but I don't know about the other startups. First, you don't know if they are going to dive into the depths they need to do, because they are focused on their own thing. So, it (the feedback from startups) is really on a high level. "Here's an interesting idea that could be useful", but past that I don't think I could be useful. Because, again, it requires a lot of knowledge about what they are doing." – CEO of S5 However, our interviews revealed that some entrepreneurs actively use the peers they know possess talent within a specific field (e.g., User-Experience design) to help solve specific challenges. Likewise, when we observed a mentor-roundtable and some of the mentors were not able to participate, the facilitators asked the available startups and us to contribute with the feedback to the presenting startup. The mentor-roundtable were organised in the way that an entrepreneur present a problem description and start a discussion with the participants, lasting for about 20 minutes. This observation indicated that the entrepreneurs gladly shared their knowledge and asked for help when the facilitators enabled it. Based on this experience and our interviews, the primary source of knowledge sharing in A2 seems to happen between the startups and the alumni-companies, mentors, and facilitators. Especially alumni, as some startups state that they prefer to hear from people who have recently been through the same situation.

Our interview with the program manager and director of A2 revealed the "entrepreneurs workshop" as one of the exciting areas of knowledge sharing. Here, the startup themselves can choose the topic and get input and suggestions from their peers on specific problems they face. Interestingly, these workshops do not always concern matters directly linked to their business, but rather the entrepreneurs themselves. In a previous batch, one of the entrepreneurs had brought up the topic of balancing family life with his work life. This topic lead to other entrepreneurs opening up about their personal challenges.

In general, the climate in A2 is described as warm and welcoming by the participating startups. Through our interviews, the program director of A2 told stories of helping their participating startups through both personal and professional hardship. When one of the entrepreneurs contemplated several accelerator programs, it was the positive impression of the facilitators themselves that ultimately made the startup chose A2.

4.3 Summary of key findings

Our findings show that there is no identified any activities or arenas that specifically focus on learning from failure in neither of the accelerator programs. However, there are identified activities and arenas that could potentially do so. The first key finding shows that measurement of progress is conducted differently in the two accelerator programs. A1 measure the startups in a detailed way by using KPI-goals and PoC sessions with a tool called 15Five. These sessions are the arguably only events where missteps are addressed. On the other hand, A2 measure the startups more vaguely, as they arrange jointly report sessions and one-to-one meeting without any specific, quantifiable measures to discuss.

The second finding is that the entrepreneurs emphasise the ecosystem, especially the mentors, as extremely important for knowledge sharing. Activities such as mentor speed-dating are emphasised as very helpful for the startups of both accelerator programs when it comes to sharing struggles and learning from them. It is also worth to notice that in A2, where they have an incubator in the same office as the accelerator program, many of our informants emphasised their contribution to feedback on the startups' ideas and strategies.

Third, the findings present the accelerator programs' criteria for startups, which show that there was a difference in both industry and maturity of the participating startups. Interestingly, the entrepreneurs participating in A1 claims that it would have been easier to share knowledge with their peers if the startups had been more similar in terms of industry and maturity. However, the entrepreneurs in A2 are operating in roughly the same industry and express that there is little to none peer-to-peer sharing. The entrepreneurs from both accelerator programs agree that mentors are one of the fundamental sources of knowledge transfer. Yet, entrepreneurs in A2 pointed out that they would rather ask a peer then a mentor when they know he or she is an expert within the relevant field of that challenge – e.g. user experience design.

Forth, the finding shows that peer-to-peer knowledge sharing happens when the facilitators enable it, as in the examples of mentor-roundtable and entrepreneurs' workshop in A2. We observed this finding when participating in a mentor-roundtable, where entrepreneurs from the participating startups were asked to substitute a mentor and give feedback on the presenting entrepreneurs' challenge. Likewise, the facilitators emphasised that the entrepreneurs' workshop is arranged as an activity where the entrepreneurs can share challenges with each other.

Fifth, our findings suggest that failure is perceived differently from individual to individual, but mostly as an inevitable part of being an entrepreneur and sometimes a requirement for success. The interviewees also state that failure might be advantageous because it is as a potential source of learning. Further, the entrepreneurs participating in A1 seems to be as confident in sharing their failures as well as success, suggesting that the accelerator's environment is considered to be a psychologically safe space to be open about their fallibility.

Sixth, our findings present two reasons why participants from both accelerator programs perceive the program to be too short to facilitate learning from failure. First, the startup might have too complicated or expensive minimum viable products to be able to experiment, fail and learn. Second, the startups express that 12 weeks is a short time and it is difficult to fail fast. However, in relation to the second reason, the same entrepreneur understands the challenges that comes with extending the program.

Finally, the seventh significant finding reveals that the climate in both accelerators is perceived as supportive and friendly. Facilitators from both programs have expressed the importance of making a psychologically safe space to facilitate trust between the entrepreneurs. However, entrepreneurs in A2 expressed that the structure of four + eight weeks, ending with "pitch and selection night" after the first four weeks, makes the environment slightly competitive as 11 startups are competing over five spots.

5. Discussion

Our aim of this study is to explore how an accelerator can facilitate learning from failure. As our research question is quite broad, we have divided our research into three sub-research questions. As discussed in the introduction, these sub-research questions highlight how failure is perceived, what actions we have identified, and which actions that could be implemented in the two accelerator programs to facilitate learning from failure. In this chapter, we will combine the theory we explored before our study, and the collected empirical findings from our research, to discuss how an accelerator can facilitate learning from failure.

5.1 How is failure perceived in an accelerator program?

To answer how an accelerator program can facilitate learning from failure, we argue that we must determine the facilitators and participating entrepreneurs' attitudes towards failure. First, we aim to explore the informants' attitude towards failure. Some researchers state that many organisations are still more concerned with pointing blame (Shaver, 2008), resulting in organisational members hiding their failures (Goleman, 1996) or not paying attention to failures (Kahneman, 2010). In line with prominent research, we argue that an individual's or organisation's attitude towards failure can determine to what degree one can identify and analyse failure (Cannon and Edmonds, 2005), and consequently the lesson you can derive from your failures. Further, we discuss the findings surrounding how the entrepreneurs share and learn from each other's secrets. We discuss important factors, such as trust and perceived value of social networks, to help us understand what affects knowledge derived from a failure to be shared among the participating entrepreneurs. Lastly, we examine how the entrepreneurs perceive failure.

5.1.1 Entrepreneurs and facilitators attitude towards failure

Similar in both accelerators, is the reported tendency to perceive failure as an opportunity to learn. Additionally, it would seem that failure is perceived by some informants as a natural part of any entrepreneurs' life, suggesting that one have to

fail a couple of startups before experiencing success. Both facilitators and startups report drawing on previous knowledge when facing new challenges, and using past experiences to incorporate new tools into their current practices. This behaviour could be explained by Kelley and Kelley's (2013) sense of selfefficacy. By drawing on previous mastery experiences, e.g. the CEO of S4 used her previous experience with a previous startup's success, despite resistance and initial failure, to venture forth with new venture creation, the entrepreneur is more confident when failing in the future (Kelley & Kelley, 2013). However, our interviews revealed that for some of the entrepreneurs this is their first startup, while others have experience from previous new venture creation. Since the level of past experiences varies between the entrepreneurs, their self-efficacy and how comfortable they are with failure could differentiate. The dimension of selfefficacy arguably affects how open the entrepreneurs are to using failure as a source of learning. Therefore, we postulate that the accelerator program must first identify their participants' attitude towards failure, before initiating actions aimed at learning from or sharing failure. In line with Cannon and Edmondson (2005), the individual or organisation must be able to analyse its failures to learn from them. If the entrepreneurs are not comfortable with learning from failure, it may result in solely blame attribution and reluctance to admit own fallibility. If the participants already are comfortable with failure, the facilitators do not need to spend time on activates aimed at increasing the entrepreneurs' self-efficacy.

However, upon investigating the startups and facilitators' definition of failure, the entrepreneurs often presented us with a trade-off. The CEO of S4 believes that there is a balance when it comes to the degree of using failure as a source of learning. He argues that having too much focus on failure could be demotivating for the entrepreneurs' enthusiasm and drive. As discussed in the theoretical background regarding failure, this enlightens the psychological tendency to protect one's happiness and revert from potential harm to self-image (Taylor, 1989). As stated at the beginning of this thesis, most startups often face the possibility of venture failure. It is interesting to reflect upon how this presumed fear of failure influence the entrepreneur's mindset, performance, and the ability to use failure as a source of learning. As this statement came up, it somewhat conflicts with the indicated self-efficacy identified concerning the startups' attitude towards failure. Therefore, we argue the importance of facilitators

GRA 19502

teaching participating entrepreneurs to identify and analyse failure, as championed by Cannon and Edmondson (2005). We argue that this could be an effective way to diminish the *cognitive dissonance* described by Kvalnes (2017), where the entrepreneur distances him- or herself from the fact that a failure occurred. By learning to work with failure, the entrepreneurs could increase his or her selfefficacy through drawing on mastery experiences derived from failure (Kelley & Kelley, 2013). However, our interviews, observations, and received documents found no particular approaches, systems or arenas to share or analyse failure. This could indicate that such activities and actions are absent, as we argue that we would have discovered something in our data collection if they had existed.

Nevertheless, most of the definitions and stories involving failure seem to indicate that the entrepreneurs and facilitator view the definition of failure as a concept on the far right of Edmondson's (2008) spectrum – i.e. exploratory testing. This could imply that failure is considered to be a necessary outcome of exploration, and presumably should not be blamed or punished. However, we emphasise the importance of not viewing all failures in this matter. Failure associated with mundane tasks and obligations such as deadlines and formalities should not necessarily be taken lightly. No findings indicated how startups and facilitators determine when a failure is exploratory and when it is avoidable. This could be done by educating and training the entrepreneurs in performing Collins (2011) *autopsy without blame*, which allows the team affected by the failure to determine the root cause of the mistake with the intention of learning from and not attribute blame.

Blundel and Lockett (2010) argue that the entrepreneurs' perception, experience, knowledge and motivation are significant when it comes to discovering opportunities. Additionally, Harper (2008) claims that when several entrepreneurs act together as an emergent entrepreneurial team, superior discoveries of opportunities and solutions for barriers are uncovered, which might not have been discovered by the single entrepreneur. This implies that the entrepreneurs' knowledge and capabilities, such as experience from the previous failure, will be helpful for other entrepreneurs when sharing.

The CEO of S2 expresses that the definition of failure could differ between the various members of the entrepreneurial team. Having different interpretations of a concept could potentially affect the individual member's attitude and engagement in activities aimed at learning from failure. For instance, if the CFO of S2 view all failure as avoidable errors which only illustrate ones' incompetence, he or she would arguably be less receptive to the actions aimed at learning from failure. This point addresses the importance of creating a universal understanding of failure. To learn how to use failure as a source of learning, practitioners need to know what the concept includes, and maybe more importantly, what it excludes (Cannon & Edmondson, 2005).

5.1.2 Trust and failure

In the literature surrounding failure and knowledge sharing, trust has been shown to be an important influence on discussing and sharing lessons derived from failures between different organisational members and networks. Our findings revealed that it seems to be a perceived change in attitude toward sharing between startups and established corporations. In the findings, the facilitators of A2 argued that corporations are reaching out to small startups to learn and collaborate, instead of stealing ideas and ensuring market domination. Regarding learning from failure, this could be of significant value to startups working with institutions. For A2's entrepreneurs working within the fintech industry, startups could consult and learn from banks and their previous failures. Battisstella et al. (2017) argue that established corporations arguably have robust budgets and a vast pool of employee knowledge. This resource could provide valuable insight for relatively inexperienced entrepreneurs who have yet to make many of their own experiences.

This access to other companies' resources through assigned mentors or company partnerships would arguably depend on the quality of the relationship between the startup and the established institution or mentor. As presented in our theoretical background, trust is a dynamic relationship (Colquitt, Scott & LePine, 2007) and a pre-requisite for sharing knowledge (Butler, 1999; Lin, 2007). Our findings revealed that all our informants valued the mentor they were assigned. This could indicate that the relationship is of high quality, and that the tie enables the entrepreneurs to gain valuable feedback and insight on their raised challenges and issues. However, little information was identified about the quality of the relationship between startups and partners/mentors after the accelerator program has ended. If the accelerator program immediately re-appoints mentors to new startups in the next batch, the time and focus on previous startup-mentees could wither. Consequently, the network, knowledge pool and trusted relationship between the entrepreneurs and the ecosystem they have access to during the accelerator program could potentially last only for the duration of the program.

Additionally, the findings suggested that when an accelerator batch presumably feel they can trust each other, they have brought up personal failures that are not necessarily directly linked to their business. A2's "entrepreneurs' workshop" revealed that entrepreneurs bring up topics, such as failure to balance work and family. According to the facilitators, this evolved into a conversation where many of the other entrepreneurs raised their challenges with their work/life balance. Arguably a sensitive manner, this could indicate that the level of trust between the entrepreneurs in the previous batch of the accelerator program was quite prominent. If this level of trust has been witnessed before, it might be similar in our researched batch, or future batches. Building on Kankanhalli, et al. (2005) and Chiu et al. (2006), this level of trust arguably increase sharing and collaborating, consequently lowering the bar for sharing and learning from failure.

5.1.3 Peer-to-peer learning from failure

Upon investigating how the accelerators perceive learning from failure, one should also study how they facilitate sharing of knowledge derived failure. The findings reveal that both cases have a multinational batch of startups. Although both facilitators and startups argue that a diverse and global batch benefits the program, it was also presented some challenges with assessing many different cultures. The Program manager of A1 mentions that different cultures have unique attitudes towards asking for help. If one of the entrepreneurs is not comfortable asking for help, say to overcome an obstacle or discuss a recent failure, the learning opportunity could be lost for the individual. Kanahati et al. (2005) argue that trust reduce the negative consequences associated with sharing. If an entrepreneur is afraid of sharing failures, the individual could perceive being open

about this challenge as detrimental to his or her character and personal skill. We would, therefore, argue that developing the trust between all actors of the accelerator program ecosystem is vital to lower the bar for asking for help and foster peer to peer knowledge sharing.

As presented in findings, A1 focuses on startups within the field of social entrepreneurship that already have paying customers. We argue that this way of recruiting startups gives a range of companies within different industries, e.g. S2 as a solar panel production company, and S1 as a technological service product. From our interviews, the CEO of S2 argues that participating in an accelerator program with startups focusing on one specific industry would enhance peer-topeer knowledge sharing and exchange of previous experiences, such as failure. However, the findings indicate that the startups of A2, who arguably is more similar in their industry than A1's, also perceive that their peers do not face the same challenges. This indicates that even though the startups operate within roughly the same industry, they do not recognise the potential generalisability of peers' experience and knowledge, and ultimately each other's failures. If the startups do not perceive their peers as valuable sparring partners when they face challenges, the potential learning from own and others failures could be affected. Little prior research has discussed the advantage or disadvantage regarding knowledge sharing and learning of participating in an accelerator with a focus on a specific industry. However, our findings argue that peer-to-peer learning are not affected by the accelerators choice of diverse industries. Drawing on the interview with The CEO of S4, he argues that even though the startups in his batch are within fintech, they do not necessarily use each other to share valuable market insight or knowledge.

Another interesting finding is that startups from A1 argue that if the participating companies were in an earlier stage the motivation for peer-to-peer knowledge sharing would have been higher. We believe this is a valid point, as most startups in the early stages face many of the same universal challenges when developing their company – e.g. market segmentation. Radojevich, Kelley and Hoffman (2012) state that the main obstacles startups encounter are associated with; not getting funding, misunderstanding their targeted market, lack of marketing expertise and inexperience of entrepreneurs and their team. Our interviews found

that entrepreneurs from A2 also argue that it is useful to have peers at the same stage of maturity. Early startups is argued to face similar challenges concerning fundraising, recruitment, and concept development. Thus, the entrepreneurs are potentially more prone to help each other out, as their challenges surrounding establishment of their startup could be quite universal.

However, the same startups also express that peer-to-peer knowledge sharing, in their experience, mostly consists of superficial advice. The CEO of S5 fears that his peers might not dive into the depths of his company's challenges. In our interview, the CEO of S5 said:

"First, you don't know if they are going to dive into the depths they need to do, because they are focused on their own thing."

This interview gives a fascinating insight into the perception of entrepreneurial peer-to-peer knowledge sharing. This finding indicate, at least for some of the participants of A2, that some entrepreneurs might not believe that the other participating entrepreneurs will be able to give sufficient feedback on their challenges. Thus, our research may have identified an additional barrier to peer-to-peer knowledge transfer. This finding would also affect sharing lessons derived from failure. If the CEO of S5 experience failure, he may be reluctant to discuss or analyse the failure with his peers. Given that he might perceive going to other colleagues as a waste of time, the potential lesson derived from that failure would be lost to his colleagues, or potentially ignored by the CEO himself.

On the other hand, even though entrepreneurs report that they do not utilise the knowledge of their peers in matters associated with starting or developing a business, our interviews showed that they would ask the other participants with exclusive competence in areas such as UX-design (User-Experience design) about specific challenges. Likewise, one of the entrepreneurs from A1 says that he would ask another startup with expertise and experience, rather than a mentor or professor specialising in the same field. This indicates that the level of maturity does not necessarily affect the level of knowledge sharing. Regarding learning from each other's failures, the barrier seems to be the perceived inferior quality of the help their peers can provide. This could mean that the startups would possibly be reluctant to share their failures, as they do not expect any of their peers could

help them. This could indicate that the startups are aware of the value of peer-topeer learning, but it may be limited by their perception of each other's competence and ability to help. For startups to learn and share each other's failures, the facilitators would arguably have to rid the entrepreneurs of these attitudes, and urge its participants to engage in peer-to-peer sharing.

5.1.4 Knowledge sharing in the accelerator program's ecosystem

During our interviews, the entrepreneurs indicated that they seemed to value their sparring with mutually selected mentors as one of the most useful knowledge sharing arenas. By matching the startups with mentors that complement their skill-set, they facilitate valuable knowledge transfer between mentor and startup. Given that mentors usually come from corporations or competing businesses, creating trust is equally important between the mentors and entrepreneurs. Drawing on Chiu et al. (2006), Creating trust is important as it enables knowledge sharing and combination, i.e. using the newly acquired knowledge with their exciting knowledge. However, no findings indicate any evidence of mentor requirements or preparation of the alleged "teaching role". More precisely, our interviews and provided company documents indicated that the mentors have no obligation of sharing knowledge derived from previous experiences or failures.

We would argue that mentors could have a considerable influence on how the startups view, identify and learn from failure. Sharing failures, or personal experience what so ever, is not necessarily something that the mentors do. Mentors are arguably individuals with experience and achievements, and may, therefore, have acquired through their professional career many different sources of power. One of these powers could be sourced from expertise (Gupta & Govindarajan, 2000). An individual with expert power has this power as long as the expertise is scarce (Reed, 1996). This could potentially indicate that the accelerator program's mentors perceive that they are losing power when helping startups, resulting in a reluctance to share their knowledge. Further, mentors could fear that sharing their failure gives the impression of incompetence (Taylor, 1989). Potentially reducing the mentors self-image, they could be reluctant to admit previous mistakes and failures. However, this is likely not the case. Given the entrepreneurial mindset expressed by our informants of failure being a

precondition of success, the mentors would hypothetically not feel any concerns sharing their past mistakes.

Further, as mentioned in chapter two, given the impression that one possesses and can dispense valuable knowledge, arguably increases the mentor's expert power among the startups (Reeds, 1996). Unfortunately, we were not able to observe these mentor meetings during our research. However, through our interviews, when the CEO of S2 where asked to talk about a time he used the accelerator program to overcome a challenge, the entrepreneurs often expressed they got help from mentors, partners or alumni. Based on the entrepreneurs' frequency of referring to their ecosystem when asked to tell about a time they overcame a challenge or failure (Table 5.), we argue that the mentors do in fact share their knowledge and help their assigned startups.

5.1.5 Concluding remarks

As an accelerator program facilitate development of startups by offering services together with a supportive peer-to-peer environment and entrepreneurial culture (Christiansen, 2009; Pauwels et al., 2016), sharing of experiences, knowledge and motivation is argued to be a critical foundation of the program. To conclude, the prior discussion shows that the startups are varying in their preferences about asking for help from peers, due to several reasons based on the industry and the maturity of the startups. However, we argue the importance of accelerators expressing the significance of peer-to-peer learning and sharing. The following section will review what actions we have identified to facilitate learning from failure.

5.2 Which specific actions are identified to facilitate learning from failure?

To assess how an accelerator program can facilitate learning from failure, we will first present the current practices identified in our research of the two accelerator programs. In this section, we present six activities we identified as actual or potential arenas of learning from failure. Based on our data, we discuss how they were executed, and inconsistencies with propose and observed outcome of the activities.

5.2.1 Measuring progress

Measurement of progress is done quite differently in the two studied accelerator programs. A1 uses several prominent tools that measure the startups' progress in detail, such as KPI, PoC and 15 five. The tools measure both weekly and monthly goals as a progress towards one or more final goals – e.g. S1's number of acquired costumers. The facilitators of A2 seems to use feedback sessions as rapidly as A1. However, no clear goal strategy was identified, and the measurement techniques are described as vague by the CEO of S6 from the previous batch. A2 allegedly focus on long-term goals such as developing a better pitch or building a minimum viable product before demo day. Miller and Bound (2011) argue that specific and ambitious goals lead to a higher level of performance than vague and easy targets. The program director of A2 addresses that they probably could implement quantitative and clear goals, but is not prioritised as the startups are in an early phase were the number of customers or revenue are not their primary focus. On the other hand, Miller and Bound (2011) argue that one of the critical elements of the accelerator program is to provide a basic framework for startups to reach established goals. Further, Miller and Bound (2011) state that every company should be able to set clear goals themselves, but in reality it can be hard for new startups as they face constant changes. Added, we argue that by measuring the progress step by step, it facilitates for the startups to learn from failure. Failures would then be quickly detected and discussed with both peers, through KPI sessions, and in PoC sessions with the facilitators.

However, as presented in the findings, we did not perceive the KPI and PoC sessions to truly investigate root causes or potential future actions when startups failed to meet their targets. Even though the facilitators asked for input from the other entrepreneurs, the request seemed to fall on deaf ears. Participating startups inactivity could be explained by the Kvalnes' (2017) *bystander effect*. Given that a total of 30 people is attending A1's KPI sessions, the participants could potentially feel a 1/30 obligation to provide their feedback. Another explanation could be the *pluralistic ignorance*, which hinders people contributing since no one

else is taking the initiative (Kvalnes, 2017). Drawing on the research of Cannon and Edmondson (2005), the consequences of not determining root cause and contributing factors to failure could severely affect the startups' performance. When not meeting the desired goal, strategies such as "we will keep trying" could indicate two detrimental barriers to learning from failure (Kvalnes, 2017). The first one is the *Sunk-Cost Fallacy*. This effect could either be illustrated by startups' overly commitment to a strategy that is not working, i.e. *loss aviation*, or startups who are blind to the fact that their approach is not working at all, i.e. *cognitive dissonance* (Kvalnes, 2017). We argue that if more time had been spent on identifying the reason for not meeting the startups' established goals, one could identify these mechanisms as barriers to learning from failure, and ultimately make unbiased decisions.

5.2.2 Mentor and partner speed-dating

Researchers argue that mentors and network are the key elements of an accelerator program (Bluestein & Barrett, 2010; Katz & Green, 2009). The participating startups argue that mentor and partner speed-dating is efficient, as it not only provides one, but several valuable sources of knowledge. First, the selection process itself provides the startups with a vast array of new contacts in their network. In our interviews, the CEO of S2 reported that the mentors they did not match with still offered access to his or her resources and network. Radojevich-Kelley and Hoffman (2012) argue that mentors dispense advice and provide valuable feedback to the startups based on personal experience. The startups claim that the mentor and partner speed-dating gave them numerous contacts and networks, counting about 70 professionals, which have been helping the startups through several difficulties and providing them with the knowledge to learn from such failures in the future. This is further supported by Hochberg (2016), who argue that network is highly important as it facilitates sharing of information and resources critical to the entrepreneur. This speed-dating arguably provides each startup with a sparring partner, of which they can discuss and learn from failure. We argue that the mentor's seniority and helpfulness builds trust with the entrepreneurs, and that this trust facilitates to a greater extent of sharing experiences with failure than we observed between the entrepreneurs.

Second, the structure of the mentor and partner speed-dating facilitated for a mutual match between startups and one or more specific professionals. Thus, this structure encourages the entrepreneurs to express their current situations, e.g. failures and obstacles, as the purpose of such speed-dating is to find professionals that can help them with their growth. However, it is argued that for speed-dating to be efficient, the entrepreneurs must be honest about their current obstacles and situation, which according to Reagans and McEvily (2003) can be challenging in situations where the professional and the entrepreneur has not yet developed a relationship. Therefore, we argue the importance of the facilitators expressing the significance of honesty about failures and obstacles during the speed-dating. Our interviews found that entrepreneurs from both accelerator programs expressed no trouble to communicate their struggles or challenges with their mentors. This initial belief was reinforced when we observed the mentor roundtable session in A2. There appeared to be no social hierarchy among the entrepreneurs, facilitators or mentors. As we perceived the climate to be casual and relaxed, we argue that there is little indication of reluctance to share experiences in A2 between the entrepreneurs and mentors. Our interviews and observations in A1 give little reason to believe otherwise for this accelerator program, but observations of entrepreneur and mentor dynamics are needed to increase this claim's reliability.

5.2.3 Mentor roundtable

As the findings show, A2 arrange a workshop called mentor roundtable, which also have been observed by us. These roundtable meetings were observed to be interactive and spark engagement from the participants. In contrast with A1's KPI-session, which we considered rather unengaging and spawned little peer-to-peer knowledge transfer, this mentor roundtable session was characterised by high energy and allowed efficient problem-solving. The differences could be explained by the *Bystander effect*, as described by Kvalnes (2017). The considerably fewer people who attended the mentor roundtable (seven participants + one presenting startup, in contrast to 30 participants at A1's KPI-session), could have increased the perceived intimacy of the session. The seclusion could increase participants felt obligation to contribute, which spawned more feedback and higher overall energy in the meeting.

The roundtable meeting does not present failures per se, but rather a challenge the startup is facing. Drawing on our observation notes, we see a tendency to primarily focus on problem-solving, and not so much deriving lessons from previously failed attempts at solving their challenge.

"Feedback from the mentor roundtable mostly consists of concrete solutions to challenge. Seemingly no interest in previous attempts or possible previous experience with similar challenges" (field notes, 2018, April. 25th).

Although having a focus on problem-solving is effective in solving the current challenge, we argue that long-term gains could be achieved if the mentors were to address the presenting entrepreneur's previous failures the with the presented challenge. If the mentors were to take on a coaching role, i.e. guiding the presenting startups to find their own solutions, they could encourage the presenting startup to analyse and learn from their previous failures. This could prove as valuable experience when they unavoidably encounter another challenge after the accelerator program is over, and hopefully analyse their steps instead of running with the first available "quick-fix".

We witnessed that the experienced mentors mostly steered the mentor roundtable. Experienced mentors are argued to be eligible to give more novel suggestions than other entrepreneurs, and their input could raise the foundation of the discussion, letting contributing entrepreneurs build on already unique solutions or input. By raising the bar of the discussion, startups could perceive that this activity addresses the depths of their challenge. Thus, the concern for peers not investing enough in their challenge could be eliminated.

During one of the mentor roundtable we attended, one of the mentors was not able to participate. To substitute the mentor, the facilitators of A2 asked the startups they believed had experience and expertise within the topics of discussion to join the session. During the roundtable meeting, we observed that the substituteentrepreneurs were able to offer novel feedback to the presenting startups. Our observation also revealed that the substitute-entrepreneurs were slightly more interested in what the presenting startup had done previously, suggesting that they facilitated for the presenting startup to discuss and learn from previous experiences with the participants of the meeting. We argue that such collaboration facilitates active peer-to-peer learning and a superior source of learning from failure. Additionally, the contributing startups could learn from the presenting entrepreneurs' failures and challenges. Thus, such collaborations arguably create a win-win-win situation, where the startups could benefit from each other and the contributing mentors. This is supported by Harper (2008) and Bacharach (2006), who claim that entrepreneurs may efficiently determine opportunities and solutions to challenges when working together.

5.2.4 Focus weeks

The present study of two accelerator programs reveals that they both run "focus weeks". These themes range from topics such as "Growth and marketing", "Blockchain and VR", and "Investor readiness". One of these weeks, called "Hell Week", based on a book by the old Norwegian Army officer Erik Bertrand Larsen (2013), focuses on hardship and self-realisation. During this week, a "circle of trust"-event forces the entrepreneurs to talk about professional and personal hardship. Drawing on Butler (1999) and Lin (2007), these events may improve the relationship of the entrepreneurs, and ultimately lower the threshold of sharing failures. In addition, the other weeks, e.g. "growth and marketing", encourages the entrepreneurs to try new strategies. They also encourage the startups to share their experiences with each other and consequently learn from each other failures and successes.

However, if the startup has one week to learn about "Growth and marketing", a skill that arguably takes a considerable time to perfect, the intensity of the program may reduce attention to undesired outcomes. For instance, if one should experience failure with their market segmentation, the entrepreneur may neglect to analyse the failure, due to the intensity of that specific week. Unfortunately, as were not able to observe more than one day a week, due to prior engagements, we were not able to measure how the intensity of the focus weeks affected overall learning from failure or other experiences. However, as indicated by Simon and Chabris' (1999) gorilla-experiment, one could argue that such thematic weeks may render the startups blind to potential unintended learning, such as lessons learned from failure. Drawing on Kahneman' (2010) concept of *double blindness*

GRA 19502

– i.e. not realizing that something is wrong or that you are overlooking vital information, this effect may even be lost to the entrepreneurs themselves. Therefore, we argue that it becomes the facilitators' responsibility to make sure that the startups do not develop tunnel vision when working with specific tasks during these focus-weeks.

5.2.5 The entrepreneurs' workshops

During our interviews, we identified another activity for knowledge sharing and learning, called "The entrepreneurs' workshop". It is a workshop where an entrepreneur chooses a theme, usually connected to a problem or obstacle, to share and discuss with the participating startups. We found this activity to be a useful arena to facilitate peer-to-peer learning and sharing, as the initiative forces the entrepreneur to present a problem he or she is facing. Additionally, Kankanhalli et al. (2005) argue that when individuals give of themselves, others are more likely to return the favour and share their knowledge. Likewise, theories propose that when an individual share a struggle or previous failure, others feel okay with opening up and sharing theirs because of the connection that has been established (Von Krogh et al., 2000). During our interview, we discovered that a previous workshop was concerning the work/life balance of the entrepreneur. As described in the findings, this topic sparked a conversation about delicate matters. We argue that this is a fairly intimate topic and therefore indicates (at least for that previous batches) that the entrepreneurs felt safe to share personal struggles and challenges.

However, given the experience or individual attitude of the entrepreneur, the topics chosen for the entrepreneurs' workshop could be vague or too general. This could either be an attempt to hide their challenges from the other startups (Taylor, 1989), or inability to identify one's failures (Cannon and Edmondson, 2005). Another potential issue with this activity is the social barriers to learning from and sharing failure, as identified by Cannon and Edmondson (2005). The facilitators can encounter startups who are not willing to share their challenges and obstacles. Thus, the facilitators must be aware of these social barriers and enable a psychologically safe environment for the startups. Creating a climate where the startups feel safe, would arguably reduce the potential negative associations with

sharing and admitting failure (Taylor, 1989). Building on this, Von Krogh et al., (2000) supports the need for creating the right context to enable peer-to-peer sharing and learning between participating entrepreneurs.

5.2.6 Social activities

In our research, we identified some of Von Krogh et al.'s (2000) enablers for knowledge sharing. However, in our research, none of Von Krogh et al. (2000) enablers where explicitly mentioned. This finding might indicate that even though both accelerator programs have arenas, objects and mechanism that facilitate knowledge sharing, it might not be intentional or properly communicated to their organisational members.

From our observation of the two accelerator programs, we identified Van Krogh's et al. (2000) enablers of knowledge sharing - managing conversation. As presented in the theoretical background, Van Krogh et al. (2000) argue that the organisation, in this case an accelerator program, must facilitate informal meetings between its organisational members. We identified appliances and activities such as a foosball table, sausage-lunch, community gym classes, Fridaygames in the basement, and hiking trips, where participants, alumni and facilitators had informal arenas to discuss challenges or enhance social relations spontaneously. During our visits to both accelerator's office spaces, we saw that some of the entrepreneurs engaged in playful activities, such as playing foosball and arcade games, or alumni, mentors, facilitators and entrepreneurs came together for a quick sausage-lunch. However, as these appliances and activities were not mentioned by any of the entrepreneurs as arenas to discuss challenges and share knowledge, it could suggest that these are mostly just fun and relaxing. We acknowledge that some entrepreneurs could perceive that the shortness of the program inhibits such items and initiatives from being used, and that they cannot waste their time and resources on leisure activities.

The other of Von Krogh et al.'s (2000) enablers of knowledge sharing our observations revealed, was the element of *creating the right context*. This enabler involves the organisational structures ability to foster stable relationships, effective collaboration and empowerment (Von Krogh et al., 2000, p. 176). Both

accelerators operate with open offices, where the entrepreneurs sit side by side, without predetermined seating. This arguably enables more collaboration than if they were to sit in their separate offices. This potentially reduces the chance of "office clicks", and facilitates for all members to get acquainted and build relationships. A2 also has an incubator where other startups can rent an office or desk to work. We would argue that this incubator is a valuable source of knowledge for the accelerator program. Having both the accelerator and incubator in such proximity facilitates informal conversations by the coffee machine and an increased pool of potential knowledge. However, it is worthwhile to note that Von Krogh's et al. (2000) research was not conducted among startups. This could challenge the research's generalizability to startups, as startups and established organisations may vary on factors such as economic stability, product innovation and exploration (Criscuolo, Nicolaou & Salter, 2012).

5.2.7 Concluding remarks

With this section, we have answered our sub-research question aimed at exploring how accelerator programs currently facilitate learning from failure. Although some of these activities are not intended to facilitate learning from failure, we argue that they function as activities or arenas where the participating entrepreneurs can strengthen their relationship, and learn from own and other's failure. Based on our research, we will now present actions we argue can enhance learning from failure. These suggesting both build on current practices and propose new initiatives aimed at increasing the level of sharing and learning from failure.

5.3 What activities can an accelerator implement to facilitate learning from failure?

Based on the theoretical background we presented in chapter two, the practices we observed through our research, we propose seven initiatives accelerator programs can implement to improve their participants' ability to learn from own and others failure. This aim to fill the perceived gaps and improve current practices in the accelerator programs.

GRA 19502

5.3.1 Focus week - learn to identify and analyse failure

The startups and facilitators both perceive the climate of the accelerator program to support failure as a source of learning. However, our research reveals that there are no actions aimed at identifying the barriers to detect failure, or learning how to analyse failure. Drawing on Cannon and Edmondson (2005), we argue that identifying and analysing failures is a fundamental skill for enabling entrepreneurs to learn from failure. Likewise, we argue that it is crucial for the facilitators to teach their participating entrepreneurs about the mechanisms that impede identifying one's failure.

One way to facilitate learning from failure could be to dedicate one of the focus weeks to failure. While some could argue that entrepreneurs should be reminded about these mechanisms throughout the accelerator program, we propose that one week, with a specific focus on failure, could teach the entrepreneurs the necessary tools to identify and analyse the failures they will presumably meet during the rest of the accelerator program.

Based on Cannon and Edmondson (2005), the week could include concepts and practices surrounding identifying and analysing of failure. Learning to identify failure would enable startups to detect the root cause of their mistakes, and beware of the barriers that prevent failures from surfacing. This week could include attentiveness to the mechanics mentioned by Kvalnes (2017), such as the *Sunk cost fallacy* and *confirmation trap*, so that entrepreneurs could be more responsive to potential learning outcomes from failure.

Further, the focus week could address how to analyse failure, without diminishing psychological safety or pointing blame. Drawing on Eggers and Song's (2015) research on serial entrepreneurs attributing failure to external or internal causes, it is crucial for the startups to be able to spot the actual antecedents and warning signs leading up to their failure. We argue that the facilitators should encourage their participating startups to reflect upon what they could have done to avoid or minimise the failure. According to Eggers and Song (2015), this would arguably encourage the entrepreneurs to evolve and learn from their failures, instead of blaming factors of which they have no control. Furthermore, in our interview with the CEO of S1, he stated that he sometimes perceived the program to be vague

and irrelevant to some of the startups. Because the startups had different maturity, he argued that not all activities could fit every startup. We would argue that the activities and tools the entrepreneurs could learn from a week focusing on failure could be relevant to all the participants.

From our interviews, observations, calendars access and corporate documents, we identify few activities and specific attention to failure. We would argue that providing entrepreneurs with concrete tools to derive innovation and improvements from failure could provide competitive advantages over other startups and further increase their chance of survival.

5.3.2 Interactive KPI or PoC sessions

Through our interviews and observations, the KPI and PoC sessions were identified as activities where startups presented the challenges and setbacks they have faced during the week with their ventures. However, during our observations of A1's KPI sessions, we observed that the level of feedback on the startups' presentations was relatively low. From our interviews, these sessions were portrayed as one of the most relevant and effective arenas for discussing and learning from failure. Despite this, our observations showed that the challenges and failures to meet KPI's were briefly clarified, but few concrete actions or potential solutions were generated from the audience or facilitators. Even though the facilitators asked the entrepreneurs in the audience to contribute, few gave their feedback.

Drawing on Kvalnes (2017) barrier of contribution, i.e. *bystander effect*, these forms of presentation could hinder constructive feedback. To minimize the perceived amount of participants, we argue that restructuring these meetings is essential. Instead of just arranging 30 seats in front of a scene, the facilitators could divide the startups into smaller groups and discuss possible reasons for failing to reach the KPI. If KPI's are reached, the discussion could be extended to discuss a specific challenge the startup has faced during the week. The outcome of these small discussions would then be given back to the presenting startup, enabling the entrepreneur to learn from his or her failure. For accelerator programs who do not use KPI's to measure progress, the facilitators could arrange a session where the entrepreneurs could present challenges discussed in their PoC. This would serve as a new arena for the startups to get feedback on their progress from their peers, and ultimately enable knowledge sharing between the startups.

Further, establishing activities that force the startups to give feedback could also address the CEO of S5's perception of other entrepreneurs' inability to address key issues with one's own startup. By facilitating peer-to-peer knowledge, the entrepreneurs could learn the value of knowledge transfer and inspire them to request feedback in light of new challenges. Although this would be somewhat more time consuming, we argue that the value of these sessions would increase significantly.

5.3.3 Social activities

Drawing on Von Krogh et al. (2000) enablers of knowledge sharing, social activities offer an effective arena for startups to meet, improve their relationship, and enable more knowledge sharing. Fostering healthy ties between the startups arguably builds trust, and consequently lowers the barriers to admit and share failures (Taylor, 1989). After our interviews with each of the accelerator program's facilitators, we found that these two accelerator programs operate with different budgets and economic possibilities. In the accelerator program with the lowest budget, our interviews indicated that social activities were perceived as a costly expense, and not prioritised as part of the program. However, we would suggest that low-threshold activities such as after-work drinks, football tournaments on public courses, or just throwing a frisbee in Oslo's many green areas, would be equally effective as more costly events. For instance, the sausage lunch is arguably not a costly event, but could be improved based on Miller and Bound (2011) notion of "dinners". By simply encouraging participants to tell humorous stories of entrepreneurial or personal failures over lunch, could potentially lower the barrier for sharing failure in general. Further, these types of minimum effort social activities would fit well with the intensity and short timeperiod of the program. As the findings revealed, these after work activities could be especially important to integrate foreign startups, who may not have the same social network as their Norwegian counterparts.

5.3.4 Entrepreneurs workshop

A2's "entrepreneurs' workshop" is a great potential arena for sharing and learning from failure. As we found in the present study, the entrepreneurs' workshop has previously been used to discuss failures and challenges, both with the business and their personal life. To further expand on these activities, the facilitators could require the topic of these workshops to spawn from an experience with failure the entrepreneurs have faced with their startup. By encouraging openness around their failures, it could contribute to lower the threshold of sharing and learning from each other's failures. Further, if the facilitators decide that the workshop should be concentrated around a failure, it could inspire the program's entrepreneurs to take risks prior to the workshop. Knowing that he or she will be able to analyse and discuss the potential failure with her colleagues, could reduce the fear and perceived risk of failing. This would arguably not change the core of the event, but steer the event towards learning from failure. This could yield not only more concrete feedback for the entrepreneur, but also foster a climate where one use failure as a source of learning.

5.3.5 Involve startups

During our observation of the mentor roundtable, two of the team members from S5 were recruited to fill the spot of a mentor who could not make it. During the meeting, we observed that the combination of mentors and startup provided productive feedback for the presenting startup. We saw that the substitute startup built on the feedback from the mentors, and provided valuable feedback and novel solutions to the presenting startup. We suggest that meetings like these should as often possible consist of at least one of the participating startups. As we saw in our observations, the team members of S5 had recently encountered the same challenge as the presenting startup. Thus, these meetings could be an arena where the lessons learned from entrepreneurs' own failures could be transferred to the presenting startup. On the other hand, to avoid the *bystander effect* discussed by Kvalnes (2017), the facilitators must remember that the number of participating entrepreneurs could influence their participation. To make sure everyone gets to give feedback, the facilitators could, for example, arrange for a sign-up sheet or rotation of entrepreneurs to ensure that every participant of the accelerator program has an opportunity to volunteer their time and knowledge.

One way to implement this in other activities between the startup and mentor could be to implement a buddy-system, where each startup is assigned a buddy-startup. From our research, we did not identify any buddy system between the startups, suggesting that this has yet been implemented in any of the accelerator programs. The assigned buddy-startup, who preferably is quite similar to its counterpart, would accompany the startup in meetings with their mentors and partners, and contribute to the startups' feedback loop. This could allow for the buddy-startup to build on the knowledge of the mentors and partners, and partners, and help decipher and generalise the feedback into to the startup (Chiu et al., 2006).

5.3.6 Enable knowledge sharing and creation

Drawing on Von Krogh et al. (2000), many activities could be incorporated into the accelerator program to enable knowledge sharing and consequently increase participants ability to learn from failure. First, from our research, we could not identify any knowledge vision. The first of Von Krogh et al. (2000) enablers is establishing a universal vision or goal with knowledge sharing among the entrepreneurs. In our observations, we did not see any posters or effects that communicated any corporate visions. This could indicate that there is no unifying pledge or informal obligation to drive behaviours, such as knowledge sharing and experimenting. However, this does not conclude that such visions are absent in the accelerator program. Our inability to identify a knowledge vision could be a result of un-prioritised promotion in the accelerator program's office space, to narrow interview guide, or that the vision is not well incorporated in its participating entrepreneurs - since we did not reveal any knowledge vision through our interviews. Installing such a knowledge vision could emphasise the facilitators' belief in knowledge sharing as a learning opportunity and competitive advantage, potentially motivating the startups to share more with each other. This could also be done through informal contracts which force entrepreneurs to share or pledge that their knowledge will be shared with their peers. However, we would not initially recommend the use of contracts, as these could be perceived as intimidating and restricting to the entrepreneurs.

Second, although hard to implement because of the short time duration of the program, the facilitators could mobilise knowledge activists. By identifying those who believe most in sharing knowledge, the facilitators could allow these

GRA 19502

individuals the freedom to arrange small-scale seminars. These seminars would then focus on the importance of learning from each other's failure, potentially strengthening the sharing culture among the startups. Further, the facilitators could reward startups who show a significant effort to share their knowledge or recent failures. The award would go to an entrepreneur who recently learned from a failure, or used his or hers failure to teach the other startups a valuable lesson. By calling the award Explorer of the month, the facilitators would emphases failure as a natural outcome of true experimentation, and reward behaviour that contributes to fostering a climate that supports failure. The award itself could be a visible artefact, such as a flag, which would always remind the other startups that explorative testing is encouraged.

Lastly, the findings did not uncover any systems or practices to globalise knowledge between the startups. Von Krogh's et al. (2000) last enabler of knowledge sharing, emphasises the importance of distributing the knowledge through the organisation, in this case batch. These systems usually consist of IT databases or software that allows its user to post challenges and questions in forums, for other users to comment and give feedback on (Alavi and Leidner, 2001). As this may be the first startup for some of the participating entrepreneurs, it could be highly valuable to share the resources, experiences and failures they had acquired through the accelerator program. By drawing on the research of Fuge et al. (2014) and Preece (2000), the design of database could be based on the design of social communities. By awarding knowledge sharing behaviour and allowing entrepreneurs to rise in social rankings based on their contributions, we believe it could encourage entrepreneurs to use and engage in the community.

Further, this database could also be incorporated into the entrepreneurs' weekly catch-up meetings. If the startups were to log KPI-progression, challenges and advances in a software or database, this could be used as a backdrop in their presentations. If the other startups want to investigate the presenting startups progress further, they could access their logs in the database to learn how they overcome a challenge or give feedback on failed initiatives. Also, this database could be valuable for the facilitators as the input would arguably help the facilitators identify which areas are the most challenging (Alavi and Leidner, 2011).

5.3.7 Deliberate experimentation

One of Cannon and Edmondson's (2005) key activates for learning from failure is deliberate experimentation. From our interviews, our findings suggest that some entrepreneurs view the cost of experimenting as too high. The CEO of S2 believes that the size and scope of his products limit his possibilities to experiment and learn from failure.

"Our delivery time, our client acquisition time, everything is huge. We don't sell 1000 units per year, but we sell five projects a year. (...) our minimum viable product costs 60,000 euros. Also, our projects are usually around 100,000 euros" – CEO of S2

The CEO of S5 believes that the time of the accelerator program is too short to engage in experimentation:

"I think it is too short of a time to do anything more. How can you learn from failure within three months? It's hard to fail really quickly." – CEO of S2 $\,$

Based on these indications, we argue that the facilitators could focus on teaching the participating startups to design experiments effectively. By scaling down big productions to conduct small-scale explorative testing, or designing experiments to be less time consuming, the facilitators could facilitate learning from failure derived from experiments. This would not only address the perceived challenge to set up an experiment during the time of the accelerator program, but it would also allow entrepreneurs with big unit-costs to learn to experiment. This skill would serve as a concrete, valuable tool the startups can implement in their business after the accelerator program has ended.

5.3.8 Concluding remarks

With these actions, we hope to help accelerators initiate actives and events that help their participating entrepreneurs to share and learn from failure. Although not exclusive, these activities range from big to small scale initiatives that we argue will benefit the entrepreneurs and their company.

6. Conclusion

6.1 Conclusion

With this master thesis, we aimed to explore how an accelerator can facilitate learning from failure. The discussion reviews four critical influencers on the perception of failure in an accelerator program. First, it is argued that the participating startup's self-efficacy will affect how they perceive failure, because by drawing on previous mastery experiences the entrepreneurs are more confident in failing in the future (Bendura, 1977; Pajares, 1996; Kelley & Kelley, 2013). Trust is the second influencer, and is discussed as essential between startups, as well as startups and mentors. We argue that developing trust between all actors of the accelerator programs ecosystem is vital, to lower the bar for asking for help and encourage peer to peer knowledge sharing. In addition, Chiu et al. (2006) argue that trust is fundamental when creating a climate where sharing failure and struggles is actively promoted (Chiu et al., 2006). The third and fourth influencer discussed is the industry and maturity of the startups. The findings showed inconsistency in whether the startups were more willing to share failure and knowledge dependent on the industry or maturity of the startups. Based on our discussion, we argue that these influencers might not be as relevant to learning from failure, as the entrepreneurs do not seem to acknowledge their peers' knowledge and capability to help.

Moreover, our research identified six central actions and activities that are currently used in the two accelerator programs which potentially facilitates for the participating entrepreneurs to learn from failure; measuring progress, mentor and partner speed-dating, mentor roundtable, focus weeks, the entrepreneurs' workshop and social activities. First, measuring progress is discussed as an action to facilitate learning from failure, because such activities enable the startups and facilitators to detect and discuss failure quickly. Second, as research argue that network is essential, as it facilitates sharing of information and resources (Hochberg, 2016), we reason that the structure of mentor and partner speed-dating was another key activity enabling knowledge sharing and learning from self and others' failure. Additionally, we argue that the initiative forces the startups to

share current and previous struggles. Third, mentor roundtable is identified because the activity facilitates a discussion between startups and mentors of a specific challenge, enabling the startups to learn from the mentors and vice versa.

The focus weeks is the fourth identified activity as it encourages the entrepreneurs to try new strategies within the specific theme of that week. For instance, A1 arranges a "circle of trust"-event that forces the entrepreneurs to talk about both professional and personal struggles, during their "hell week". Per Von Krogh et al., (2000), the entrepreneurs' workshop is discussed as the fifth activity to enable learning from failure because the workshop is structured for the entrepreneurs to discuss challenges and failures, and at the same time enables a climate for the entrepreneurs to discuss such obstacles throughout the program. The final activity identified to facilitate learning from failure is social happenings. These activities are argued to be informal arenas where entrepreneurs can spontaneously discuss challenges or enhance social relations. Building on Von Krogh's et al. (2000), these activities facilitate a natural arenas for the entrepreneurs to build their relations, which have been seen to increase trust (Taylor, 1989) and ease knowledge sharing (Reagans & McEvily, 2003) the establishment of relationship and trust, which again is argued as essential for sharing and learning.

Lastly, we would like to address the paradox concerning accelerator programs. Accelerators, as well as any other business, are measured on their capability to create revenue for their company. They do this by investing in startups, and cashing out a short time after the startup has completed the accelerator and hopefully increased in value since the beginning of the program. For startups, this means that accelerators could be more concerned with polishing and inflating the value of their company, than providing tools for the entrepreneurs to use when their done with the program. This could explain why some activities, such as activities aimed at learning from failure, are down prioritised over activates that make the startup more appealing towards new investors.

Spawned from our research, we suggest seven actions and activities an accelerator program can implement to facilitate learning from failure based on our research; focus weeks which focus on learning to identify and analyse failure; making the KPI or PoC sessions more interactive; initiating more social activities; establishing a framework for the entrepreneurs' workshop that is focus on failure; finally, teach the startups how to conduct and use experiments to learn from failure.

6.2 Practical implications

Grounded in the present study, we present the following actions as concrete tools to facilitate learning from failure within an accelerator program derived from our previous discussion in chapter five. Although not exclusive, this list provides facilitators of an accelerator program with specific actions they can implement in their own program.

6.2.1 Focus week - learn to identify and analyse failure

The facilitators of an accelerator program could initiate a failure focus week, where they incorporate activities drawn from Cannon and Edmondson (2005) that focus on how to identify and analyse failure, and deliberate experimentation. To identify failures, one could discuss barriers such as the *sunk-cost fallacy* and *confirmation trap*, that are both detrimental mechanisms to learning and often blind to the entrepreneurs themselves. Further, the facilitators must encourage the startups to analyse the root cause of failures thoroughly. By being able to analyse failure without necessarily pointing blame or hiding one's tracks, your organisation is more suited to learn from failure. Additionally, per the existing study (Eggers and Song, 2015), entrepreneurs who only attributes their failure to external factors are less likely to succeed with their venture, further emphasising the need for proper analyses of failures.

6.2.2 Interactive KPI or PoC sessions

Sessions where a large group of startups present to each other is not seemingly creating the right context for knowledge sharing. The *bystander effect* seems to cause the participating startups to feel less obligated to give feedback, resulting in low engagement and minimum knowledge sharing. For instance, instead of organising the KPI sessions as a "show and tell" presentation, one could divide large ensembles into smaller workshops, where each group can discuss the

presented challenges individually before sharing it with the presenting startup. This could be supplemented with post-its and poster-sessions which sparks creativity and could make the session more engaging

6.2.3 Social activities

We argue that social activities are essential for establishing trust and strengthening the relationship between the participating startups. As research shows that trust has been linked to knowledge sharing, we argue that accelerator programs can encourage activities, such as after-work drinks and playing sports, to strengthen the bonds between the entrepreneurs. This is argued to be especially crucial if the accelerator program consists of foreign startups with a limited social network in that specific country. Therefore, the facilitators should strive to offer activities and arenas for all startups, independent of their timetable. Further, Von Krogh et al. (2000) also emphasizes that the managers, or in this case facilitators, must actively encourage participation. The startups should be aware that these arenas, as well as general conversations, can be used to share failures and learn from each other.

6.2.4 Entrepreneurs workshop

We argue that workshops developed and held by the entrepreneurs themselves could be valuable arenas to share and discuss failures. By requiring the workshop to build on a recent failure, it could nurture the supportive climate towards failure and enforce the entrepreneurs' ability to analyse failures. This would also allow the entrepreneurs to customize how they want to talk about their failure. This would potentially include the entrepreneurs who are initially reluctant to share failures, as they would arguably feel in control of the situation.

6.2.5 Involve startups

From this current research, we propose that startups should be involved in as many activities as possible, especially in combination with mentors. One way of arranging this is through a buddy-system. Each startup is assigned a buddy-startup who accompany them in meetings with mentors and partners, helping the startup transfer the feedback to the entrepreneurs' startup.

6.2.6 Enable knowledge sharing and creation

We propose three actions that could improve knowledge sharing between the startups. First, by determining knowledge sharing goals, one could motivate startups to share. This could be further elaborated to goals of sharing failures, which again would strengthen the supportive climate towards failure. Second, the facilitators could acknowledge and reward knowledge activist. Through awarding those who can capitalise the most of their failure, i.e. by extracting and sharing its insight with other startups, one could inspire people to be more open about their failures. Third, the accelerator should implement an organisation-global database for sharing failures. This software database could also be used as a presentation tool for the weekly catch-up sessions, and provide valuable insight into the accelerator program about what areas the startups find most challenging.

6.2.7 Deliberate experimentation

The facilitators should focus on teaching the participating startups to design experiments effectively. Experiments could be testing products on users to get their feedback, or produce small-scale versions of products to test various features. This would not only address the perceived challenge to set up an experiment during the time of the accelerator program, but it would also allow entrepreneurs with big unit-costs to learn to experiment. This skill would serve as a specific, valuable tool which the startups can implement in their business after the accelerator program has ended.

6.3 Limitations

The study presents some limitations that give rise to opportunities for future research. Upon constructing our research design and method, we addressed most threats to our research. However, given the time duration of this research, some limitations did naturally occur. First, the case study in this thesis consisted of two accelerator programs, located in close proximity, within one city in Norway. This factor could affect the generalisability of the research. However, we would argue that both accelerator programs are developed by people with experience from similar accelerator programs across the globe. Thus, even though this study shines a light on the existing practices of two accelerator programs in Oslo, the findings

could be found in other accelerators as well. Further, the startup-sample only consisted of two current and one previous startup, from each accelerator program. This could affect the validity of the findings, as not every participant's voice was heard. Then again, our final interviews produced little new insight, suggesting that there was saturation in the understanding of the researched theoretical constructs and attitudes toward the accelerator program, signifying that our sample may have been sufficient.

Another limitation of this thesis is our selection of sites, event and activates to observe. We chose the events they believed provided a natural arena for sharing and learning from failure. As failure and knowledge sharing is present in most aspects of venture creation, this selection may have excluded some valuable session where the startups learn from failure. Nevertheless, our research show that the facilitators have few activates that aims explicitly at teaching their participating startups to learn from failure, potentially limiting activities we have missed.

6.4 Future research

This exploration of how an accelerator program can facilitate learning from failure suggests several areas that seem particularly suited for further inquiry. First, our research revealed that the mentors assigned to each startup are considered by the entrepreneurs to be one of the most valuable sources of learning from the accelerator program. We hope future research will include interviews and data from the mentors. This data could give insight into the factors of the mentor-entrepreneur relationship that enables such valuable knowledge sharing, and give insight to potential actions that could improve the peer-to-peer knowledge sharing between the entrepreneurs.

Second, as the study was conducted in one city in Norway, it would be interesting to explore if the entrepreneurs' attitude towards failure is the same in other regions as well. By replicating the case study in other regions, one could test for cultural and regional differences in both facilitators and entrepreneurs' attitudes towards failure. This study will test if our findings are generalisable. Third, to explore and test for industry differences, it would be interesting to conduct another multiple case study of two or more similar accelerator programs. This would potentially highlight differences that were not uncovered in this thesis' most similar and most different approach. This research would contribute to the understanding of how universal the findings of this master thesis are across other accelerator programs and industries.

Bibliography

- Ahmad, N., & Seymour, R. G. (2008). Defining entrepreneurial activity: definitions supporting frameworks for data collection. *OECD Statistics Working Paper*. Available at SSRN: https://ssrn.com/abstract=1090372
- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. MIS quarterly, 107-136.
- Aldrich, H. E., & Martinez, M. A. (2001). Many are called, but few are chosen:An evolutionary perspective for the study of entrepreneurship.*Entrepreneurship Theory and Practice*, 25(4), 41-56.
- Alvesson, M., & Sköldberg, K. (2009). *Reflexive methodology: New vistas for qualitative research*: London. Sage.
- Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization Science*, 20(4), 696-717.
- Bacharach, M. (2005). Foreword: teamwork. *Gold, Teamwork–Multi-Disciplinary Perspectives, Palgrave Macmillan: xxi-xxv.* UK: Palgrave Macmillan.
- Bacharach, M. (2006). *Beyond individual choice: teams and frames in game theory*: New Jersey: Princeton University Press.
- Bakker, M., Leenders, R. T. A., Gabbay, S. M., Kratzer, J., & Van Engelen, J. M. (2006). Is trust really social capital? Knowledge sharing in product development projects. *The Learning Organization*, 13(6), 594-605.
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
- Battistella, C., De Toni, A. F., & Pessot, E. (2017). Open accelerators for start-ups success: a case study. *European Journal of Innovation Management*, 20(1), 80-111.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, *13*(4), 544-559.
- Berg, B. L. (2007). A dramaturgical look at interviewing. *Qualitative research methods for the social sciences, 6.*

Beu, D. S., Buckley, M. R., & Harvey, M. G. (2000). The role of pluralistic

ignorance in the perception of unethical behavior. *Journal of Business Ethics*, 23(4), 353-364.

- Bird, B. J. (1989). Entrepreneurial behaviour. *Engineering Management Journal*, *1*(4), 37-40.
- Blank, S. What's A Start-up? First Principles. Blog by Steve Blank (2010). Available at: https://steveblank.com/2010/01/25/whats-a-startup-firstprinciples/
- Blank, S. (2013). Why the lean start-up changes everything. *Harvard business review*, *91*(5), 63-72.
- Blank, S., & Dorf, B. (2012). *The startup owner's manual: The step-by-step guide for building a great company*. K & S Ranch.
- Bluestein, A., & Barrett, A. (2010). How Incubators Speed the Start-up Process: Initiatives such as Y Combinator in San Francisco and TechStars in Boulder, Colorado, provide more than just funding. *INC*. Available at: https://www.inc.com/magazine/20100701/more-startup-incubators.html
- Blundel, R., & Lockett, N. (2011). *Exploring entrepreneurship: practices and perspectives*. Oxford: Oxford University Press.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. MIS quarterly, 87-111.
- Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. (2012). The Evolution of Business Incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation*, 32(2), 110-121.
- Bryman, A., & Bell, E. (2015). *Business research methods*: London: Oxford Universitypress.
- Bryman, A., & Burgess, R. G. (1994). Reflections on qualitative data analysis. Analyzing qualitative data, 216-226.
- Buchanan, R. (1992). Wicked problems in design thinking. *Design issues*, 8(2), 5-21.
- Butler Jr, J. K. (1999). Trust expectations, information sharing, climate of trust, and negotiation effectiveness and efficiency. *Group & Organization Management*, 24(2), 217-238.

Cannon, M. D., & Edmondson, A. C. (2001). Confronting failure: antecedents and

consequences of shared beliefs about failure in organizational work groups. *Journal of Organizational Behavior*, 22, 161-177.

Cannon, M. D., & Edmondson, A. C. (2005). Failing to learn and learning to fail (intelligently): How great organizations put failure to work to innovate and improve. *Long Range Planning*, 38(3), 299-319.

Carland, H., Carland, J. W., Hoy, F., & Carland, J. (2002). Who is an entrepreneur? Is a question worth asking. *Entrepreneurship: Critical* perspectives on business and management, 2(178), 47-67.

- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. A. C. (1984).
 Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of management review*, 9(2), 354-359.
- Carmeli, A. (2007). Social capital, psychological safety and learning behaviours from failure in organisations. *Long Range Planning*, *40*(1), 30-44.
- Chiu, C. M., Hsu, M. H., & Wang, E. T. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. Decision support systems, 42(3), 1872-1888.
- Charmaz, K., & Belgrave, L. L. (2007). Grounded theory. *The Blackwell encyclopedia of sociology*.
- Christiansen, J. (2009). Copying Y Combinator, a framework for developing seed accelerator programmes. *MBA dissertation, University of Cambridge, United Kingdom. Retrieved June, 5*, 2014.
- Cohen, S. (2013). What do accelerators do? Insights from incubators and angels. *innovations*, 8(3-4), 19-25.
- Cohen, S., & Hochberg, Y. V. (2014). Accelerating startups: The seed accelerator phenomenon. Available at: https://ssrn.com/abstract=2418000
- Collins, J. C. (2001). Good to great: Why some companies make the leap... and others don't. New York:: Random House.
- Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: a meta-analytic test of their unique relationships with risk taking and job performance. *Journal of applied psychology*, *92*(4), 909.
- Cooper, D. R. and Schindler, P. S., 2014. *Business Research Methods*. New York: McGraw-Hill/Irwin.
- Cooper, R. G. (1990). Stage-gate systems: a new tool for managing new products. *Business horizons*, 33(3), 44-54.

Cooper, R. G. (2008). Perspective: The stage-gate® idea-to-launch process-

update, what's new, and nexgen systems. *Journal of product innovation management*, 25(3), 213-232.

- Cope, J. (2011). Entrepreneurial learning from failure: An interpretative phenomenological analysis. *Journal of business venturing*, *26*(6), 604-623.
- Coyne, I. T. (1997). Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries?. *Journal of advanced nursing*, 26(3), 623-630.
- Criscuolo, P., Nicolaou, N., & Salter, A. (2012). The elixir (or burden) of youth? Exploring differences in innovation between start-ups and established firms. *Research Policy*, 41(2), 319-333.
- Cross, R., & Cummings, J. N. (2004). Tie and network correlates of individual performance in knowledge-intensive work. Academy of management journal, 47(6), 928-937.
- Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management science*, 50(3), 352-364.
- Cunningham, J. B., & Lischeron, J. (1991). Defining entrepreneurship. *Journal of small business management*, 29(1), 45.
- Czarniawska, B. (2014). Social science research: From field to desk. London: Sage.
- Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies:
 Diffusion of responsibility. *Journal of personality and social psychology*, 8(4), 377-383.
- Davenport, T. H., & Prusak, L. (1998). Working knowledge: How organizations manage what they know. US: Harvard Business Press.
- De Long, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. Academy of Management Perspectives, 14(4), 113-127.
- Dempwolf, C. S., Auer, J., & D'Ippolito, M. (2014). Innovation accelerators:
 Defining characteristics among startup assistance organizations. *Published online at www. sba. gov/advocacy:* Small Business Administration.
- Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2009). Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices. *Journal of business venturing*, 24(4), 287-309.
- Dorst, K. (2011). The core of 'design thinking' and its application. *Design studies*, 32(6), 521-532.

Edmondson, A. C. (2011). Strategies for learning from failure. Harvard Business

Review, 89, 48-55.

- Eesley, C. E., & Roberts, E. B. (2012). Are you experienced or are you talented?:When does innate talent versus experience explain entrepreneurial performance? *Strategic Entrepreneurship Journal*, 6(3), 207-219.
- Eisenhardt, K.M., 1989. Building theories from case study research. Academy of Management Review 14(4), 532–550
- Eggers, J., & Song, L. (2015). Dealing with failure: Serial entrepreneurs and the costs of changing industries between ventures. *Academy of Management Journal*, 58(6), 1785-1803.
- Ellram, L.M., 1996. The use of the case study method in logistics research. *Journal of Business Logistics 17*(2), 93–138.
- Feinleib, D. (2011). Why startups fail: and how yours can succeed: Apress.
- Finkelstein, S. (2004). Why smart executives fail: And what you can learn from their mistakes. NY: Penguin.
- Foss, N. J., & Klein, P. G. (2005). The theory of the firm and its critics: A stocktaking and assessment. *CORI Working Paper No. 2005-03*
- Frimodig, L., & Torkkeli, M. (2013). Success Factors of Accelerators in New Venture Creation. *Paper presented at the ISPIM Conference Proceedings*.
- Fuge, M., Tee, K., Agogino, A., & Maton, N. (2014). Analysis of collaborative design networks: A case study of openIdeo. *Journal of Computing and Information Science in Engineering*, 14(2), 021009.
- Gazeau, M. (1998). Le Management de la Connaissance. Etats de Veille, 1-8.
- Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic management journal*, 29(13), 1465-1474.
- Giske, L. (2017, Nov 06th). Disse tre skal snakke om hvordan det er å «gå på ræv» som gründer. *iTromsø*. Availiable at: : https://www.itromso.no/nyheter/2017/11/05/Disse-tre-skal-snakke-om hvordan-det-er-%C3%A5-%C2%ABg%C3%A5-p%C3%A5 r%C3%A6v%C2%BB-som-gr%C3%BCnder-15557890.ece
- Glaser, B. G., & Strauss, A. L. (1967). *Discovery of grounded theory: Strategies* for qualitative research. Chicago, IL: Aldine
- Goldstein, A., Lehmann, E. J., & Prax, E. (2015). Design Principles for Building a Successful Corporate Accelerator. Deloitte. Avaliable at: https://www2.deloitte.com/content/dam/Deloitte/de/Documents/technolog

y/Corporate_Accelerator_EN.pdfGoleman, D. (1996). *Vital lies, simple truths: The psychology of self deception*. NY: Simon and Schuster.

- Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological theory*, 201-233.
- Greve, H. R. (2007). Exploration and exploitation in product innovation. *Industrial and Corporate Change*, *16*(5), 945-975
- Gruber, M., MacMillan, I. C., & Thompson, J. D. (2008). Look before you leap: Market opportunity identification in emerging technology firms. *Management Science*, 54(9), 1652-1665.
- Gupta, A. K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic management journal*, 473-496.
- Hackett, S. M., & Dilts, D. M. (2004). A systematic review of business incubation research. *The Journal of Technology Transfer, 29*(1), 55-82.
- Hallen, B. L., Bingham, C., & Cohen, S. (2016). Do accelerators accelerate? The role of indirect learning in new venture development. Available at: <u>https://ssrn.com/abstract=2719810</u>
- Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative science quarterly*, 44(1), 82-111.
- Hansen, D. J., Shrader, R., & Monllor, J. (2011). Defragmenting definitions of entrepreneurial opportunity. *Journal of small business management*, 49(2), 283-304.
- Harper, D. A. (2008). Towards a theory of entrepreneurial teams. Journal of Business Venturing, 23(6), 613-626.
- Hatch, M. J., & Cunliffe, A. L. (2013). Organization theory: modern, symbolic and postmodern perspectives. London: Oxford university press.
- Hinds, P. J., Patterson, M., & Pfeffer, J. (2001). Bothered by abstraction: The effect of expertise on knowledge transfer and subsequent novice performance. *Journal of applied psychology*, 86(6), 1232.
- Hochberg, Y. V. (2016). Accelerating entrepreneurs and ecosystems: The seed accelerator model. *Innovation Policy and the Economy*, *16*(1), 25-51.
- Hochberg, Yael V., Alexander Ljungqvist, and Yang Lu. 2007. "Whom You Know Matters: Venture Capital Networks and Investment Performance." *Journal of Finance* 62 (1): 251–307.

Hochberg, Yael V., Laura Lindsey, and Mark Westerfield. 2015. "Resource Ac-

cumulation through Economic Ties: Evidence from Venture Capital." *Journal of Financial Economics 118* (2): 245–67.

- Husted, K., & Michailova, S. (2002). Knowledge sharing in Russian companies with Western participation. *Management International*, 6(2), 17.
- Hyytinen, A., & Ilmakunnas, P. (2007). What distinguishes a serial entrepreneur? *Industrial and corporate change, 16*(5), 793-821.
- Inkpen, A. C., & Tsang, E. W. (2005). Social capital, networks, and knowledge transfer. *Academy of management review*, *30*(1), 146-165.
- Jackson, S. E., Chuang, C., Harden, E. E., & Jiang, Y. (2006). Toward developing human resource management systems for knowledge-intensive team work. *JM Joseph (Ed.), Research in personnel and human resources management*, Vol. 25, 27-70.
- Jennex, M. E. (Ed.). (2008). Current issues in knowledge management. Global: IGI
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of applied Psychology*, 86(1), 80.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-291.
- Kanbach, D. K., & Stubner, S. (2016). Corporate accelerators as recent form of startup engagement: The what, the why, and the how. *Journal of Applied Business Research*, 32(6), 1761.
- Kankanhalli, A., Tan, B. C., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: an empirical investigation. *MIS quarterly*, 113-143.
- Kamm, J. B., Shuman, J. C., Seeger, J. A., & Nurick, A. J. (1990). Entrepreneurial teams in new venture creation: A research agenda. *Entrepreneurship* theory and practice, 14(4), 7-17.
- Katz, J. A. & Green, R.P. (2009). Entrepreneurial Small Business. Boston: McGraw-Hill.
- Kelley, D., & Kelley, T. (2013). *Creative confidence: Unleashing the creative potential within us all* NY: Crown Pub.
- Ketokivi, M., & Mantere, S. (2010). Two strategies for inductive reasoning in organizational research. *Academy of management review*, *35*(2), 315-333.

- Kim, S., & Lee, H. (2006). The impact of organizational context and information technology on employee knowledge-sharing capabilities. *Public* administration review, 66(3), 370-385.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization science*, 3(3), 383-397.
- Kolko, J. (2015). Design thinking comes of age. *Harvard business review*, 93(9), 66-71.
- Kristensen, T. (2004). The physical context of creativity. *Creativity and innovation management*, *13*(2), 89-96.
- Kvale, S. (1996). InterViews—An Introduction to Qualitative Research Interviewing. Thousand Oaks: Sage. ..
- Kvalnes, Ø. (2017). *Fallibility at work: Rethinking excellence and error in organizations*. Palgrave Macmillan.
- Larsen, B. T. (2013.) Helvetesuka: 7 dager som forandrer livet ditt. *Stenersen forlag*
- Lazear, E. P. (2005). Leaders and entrepreneurs: where they produce the most value. Paper presented at the Allied Social Science Associations Annual General Meeting, Philadelphia.
- LeCompte, M. D., & Goetz, J. P. (1982). Problems of reliability and validity in ethnographic research. *Review of educational research*, *52*(1), 31-60.
- Li, Y., Vanhaverbeke, W., & Schoenmakers, W. (2008). Exploration and exploitation in innovation: Reframing the interpretation. *Creativity and innovation management*, 17(2), 107-126.
- Lin, C. P. (2007). To share or not to share: Modeling tacit knowledge sharing, its mediators and antecedents. *Journal of business ethics*, 70(4), 411-428.
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry (Vol. 75). Sage.
- Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Current directions in psychological science*, 15(5), 265-268.
- Malek, K., Maine, E., & McCarthy, I. P. (2014). A typology of clean technology commercialization accelerators. *Journal of Engineering and Technology Management*, 32, 26-39.
- Malhotra, Y. (2004). Why knowledge management systems fail: enablers and constraints of knowledge management in human enterprises. In *Handbook* on Knowledge Management 1 (pp. 577-599). Springer, Berlin, Heidelberg.

March, J. G., & Shapira, Z. (1987). Managerial Perspectives on Risk and Risk-

Taking. Management Science, 33(11).

- Markham, S. K., Ward, S. J., Aiman-Smith, L., & Kingon, A. I. (2010). The valley of death as context for role theory in product innovation. *Journal of Product Innovation Management*, 27(3), 402-417.
- Maier, R., & Hadrich, T. (2006). Knowledge management systems. In *Encyclopedia of knowledge management* (pp. 442-450). IGI Global.
- McGrath, R. G. (1999). Falling forward: Real options reasoning and entrepreneurial failure. *Academy of management review*, 24(1), 13-30.
- Miller, P., & Bound, K. (2011). The startup factories. *NESTA. http://www. nesta. org. uk/library/documents/StartupFactories. pdf.*
- Molm, L. D., Takahashi, N., & Peterson, G. (2000). Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology*, 105(5), 1396-1427.
- Nahapiet, J., & Ghoshal, S. (2000). Social capital, intellectual capital, and the organizational advantage. In *Knowledge and social capital* (pp. 119-157).

Nussbaum, M. C. (2011). Creating capabilities: US: Harvard University Press.

- Ojha, A. K. (2005). Impact of team demography on knowledge sharing in software project teams. *South Asian Journal of Management*, 12(3), 67.
- Olson, P. D. (1987). Entrepreneurship and management. *Journal of small business* management, 25(3), 7.
- Paik, Y. (2014). Serial entrepreneurs and venture survival: Evidence from US venture-capital-financed semiconductor firms. *Strategic Entrepreneurship Journal*, 8(3), 254-268.
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of* educational research, 66(4), 543-578.
- Parker, S. C. (2013). Do serial entrepreneurs run successively better-performing businesses? *Journal of Business Venturing*, 28(5), 652-666.
- Patel, N. (2015). 90% Of Startups Fail: Here's What You Need To Know About The 10%. Forbes. Available at: https://www.forbes.com/consent/?toURL=https://www.forbes.com/sites/ne ilpatel/2015/01/16/90-of-startups-will-fail-heres-what-you-need-to-knowabout-the-10/
- Pauwels, C., Clarysse, B., Wright, M., & Van Hove, J. (2016). Understanding a new generation incubation model: The accelerator. *Technovation*, 50, 13-24.

Penrose, E. T. (1995). *The Theory of the Growth of the Firm*: UK: Oxford University Press.

Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management journal*, 49(1), 85-101.

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*, 8(2), 54-70.

Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer:
The effects of cohesion and range. *Administrative science quarterly*, 48(2), 240-267.

Reed, M. I. (1996). Expert power and control in late modernity: an empirical review and theoretical synthesis. *Organization studies*, *17*(4), 573-597.

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

Rødfoss, I, B,. (2017, Des 13th). Fra millionsuksess til konkurs: – Måtte restarte næringslivshjertet mitt. *Eidsvoll Ullensaker Blad*. Availiable at: http://www.eub.no/nyheter/--maatte-restarte-naeringslivshjertet-mitt

- Sarasvathy, S. D., & Venkataraman, S. (2011). Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship theory and practice*, *35*(1), 113-135.
- Seawright, J., & Gerring, J. (2008). Case selection techniques in case study research: A menu of qualitative and quantitative options. *Political Research Quarterly*, 61(2), 294-308.
- Schepers, P., & Van den Berg, P. T. (2007). Social factors of work-environment creativity. *Journal of business and psychology*, 21(3), 407-428.
- Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle* (Vol. 55): Transaction publishers.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, 25(1), 217-226.
- Shaver, K. (2012). *The attribution of blame: Causality, responsibility, and blameworthiness*: Springer Science & Business Media.

Shepherd, D. A. (2003). Learning from business failure: Propositions of grief

recovery for the self-employed. *Academy of management review*, 28(2), 318-328.

Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture creation and the enterprising individual: A review and synthesis. *Journal of Management*, 29(3), 379-399.

Simons, D. J., & Chabris, C. F. (1999). Gorillas in our midst: Sustained inattentional blindness for dynamic events. *Perception*, 28(9), 1059-1074.

- Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of qualitative research*, *17*, 273-285.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*: London: Sage..
- Tangaraja, G., Mohd Rasdi, R., Abu Samah, B., & Ismail, M. (2016). Knowledge sharing is knowledge transfer: a misconception in the literature. *Journal of Knowledge Management*, 20(4), 653-670.
- Taylor, S. E. (1989). Positive illusions: Creative self-deception and the healthy mind. NY: Basic Books.
- TheFactory (2018, 11th of April). Welcome to the best accelerator program in Norway. Available at http://www.thefactory.no/#accelerator-incubator investments-1
- Thomke, S. H. (2003). Experimentation matters: unlocking the potential of new technologies for innovation. US: Harvard Business Press.
- Toft-Kehler, R., Wennberg, K., & Kim, P. H. (2014). Practice makes perfect: Entrepreneurial-experience curves and venture performance. *Journal of Business Venturing*, 29(4), 453-470.
- Tucker, A. L., & Edmondson, A. C. (2003). Why hospitals don't learn from failures: Organizational and psychological dynamics that inhibit system change. *California management review*, 45(2), 55-72.
- Vanneste, B. S., Puranam, P., & Kretschmer, T. (2014). Trust over time in exchange relationships: Meta-analysis and theory. *Strategic Management Journal*, 35(12), 1891-1902.
- Von Krogh, G., Ichijo, K., & Nonaka, I. (2000). Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation. London: Oxford University Press
- Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human resource management review*, 20(2), 115-131.

- Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS quarterly*, 35-57.
- Weber, M. (2009). *The theory of social and economic organization*: NY: Simon and Schuster.
- Wickham, P. A. (2006). Strategic entrepreneurship: England: Pearson Education.
- Yin, R.K. (2009). Case Study Research: Fourth ed. Thousand Oaks: Sage.
- Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks: Sage..
- Zhang, J. (2011). The advantage of experienced start-up founders in venture capital acquisition: evidence from serial entrepreneurs. *Small Business Economics*, 36(2), 187-208.
- Zhu, D. H., & Westphal, J. D. (2011). Misperceiving the beliefs of others: How pluralistic ignorance contributes to the persistence of positive security analyst reactions to the adoption of stock repurchase plans. *Organization Science*, 22(4), 869-886.
- Ånestad, M. (2018, May 23th) Gründer gikk fra nesten-konkurs til ny oljeboom. *Dagens Næringsliv*. Retrieved from: https://www.dn.no/nyheter/2018/05/23/2053/Makrookonomi/grundergikkfra-nesten-konkurs-til-ny-oljeboom

Appendixes

Appendix 1 – Confirmation from NSD



Deres dato:

Vår dato: 06.07.2018

Birgit Helene Jevnaker Nydalsveien 42 0442 OSLO

Vår ref: 61195 /3 /TAL

Deres ref:

Vurdering fra NSD Personvernombudet for forskning § 31

Personvernombudet for forskning viser til meldeskjema mottatt 19.06.2018 for prosjektet:

61195	Failing to succeed - how can an accelerator facilitate learning from failure?
Behandlingsansvarlig	Handelshøyskolen BI, ved institusjonens øverste leder
Daglig ansvarlig	Birgit Helene Jevnaker
Student	Marthe Hjelmås

Vurdering

Etter gjennomgang av opplysningene i meldeskjemaet og øvrig dokumentasjon finner vi at prosjektet er meldepliktig og at personopplysningene som blir samlet inn i dette prosjektet er regulert av personopplysningsloven § 31. På den neste siden er vår vurdering av prosjektopplegget slik det er meldt til oss. Du kan nå gå i gang med å behandle personopplysninger.

Vilkår for vår anbefaling

Vår anbefaling forutsetter at du gjennomfører prosjektet i tråd med:

- •opplysningene gitt i meldeskjemaet og øvrig dokumentasjon
- •vår prosjektvurdering, se side 2
- eventuell korrespondanse med oss

Vi forutsetter at du ikke innhenter sensitive personopplysninger.

Meld fra hvis du gjør vesentlige endringer i prosjektet

Dersom prosjektet endrer seg, kan det være nødvendig å sende inn endringsmelding. På våre nettsider finner du svar på hvilke endringer du må melde, samt endringsskjema.

Opplysninger om prosjektet blir lagt ut på våre nettsider og i Meldingsarkivet

Vi har lagt ut opplysninger om prosjektet på nettsidene våre. Alle våre institusjoner har også tilgang til egne prosjekter i Meldingsarkivet.

Vi tar kontakt om status for behandling av personopplysninger ved prosjektslutt

Ved prosjektslutt 31.08.2018 vil vi ta kontakt for å avklare status for behandlingen av

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

NSD - Norsk senter for forskningsdata AS	Harald Hårfagres gate 29	Tel: +47-55 58 21 17	nsd@nsd.no	Org.nr. 985 321 884
NSD - Norwegian Centre for Research Data	NO-5007 Bergen, NORWAY	Faks: +47-55 58 96 50	www.nsd.no	

personopplysninger.

Se våre nettsider eller ta kontakt dersom du har spørsmål. Vi ønsker lykke til med prosjektet!

Marianne Høgetveit Myhren

Trine Anikken Larsen

Kontaktperson: Trine Anikken Larsen tlf: 55 58 83 97 /Trine.Larsen@nsd.no

Vedlegg: Prosjektvurdering Kopi: Marthe Hjelmås, mhjelmaas@ gmail.com

Personvernombudet for forskning



Prosjektvurdering - Kommentar

Prosjektnr: 61195

REKRUTTERING OG DATAINNSAMLING PÅBEGYNT - AVVIK

I e-post datert 03.07.18 fremgår det at prosjektet allerede er igangsatt. Det er gitt informasjon til utvalget og datainnsamlingen er påbegynt. Personvernombudet finner dette beklagelig, og minner om at prosjekter som omfattes av meldeplikten skal meldes senest 30 dager før oppstart. Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger omfattes av meldeplikten iht. personopplysningsloven § 31.

REKRUTTERING

Slik personvernombudet forstår det, skal rekruttering skje gjennom eget nettverk via jobb og skole. Personvernombudet forutsetter at det tas hensyn til konfidensialitet og at forespørselen rettes på en slik måte at frivilligheten ved deltakelse ivaretas. Vi anbefaler eksempelvis at informanter kontakter studenten direkte. På denne måten vil ikke ansatte som hjelper med rekrutteringen vite akkurat hvem som deltar eller ikke, og studenten vil kun ha kjennskap til ansatte som skal delta i prosjektet.

INFORMASJON OG SAMTYKKE

Det er opplyst i meldeskjema at utvalget vil motta skriftlig og muntlig informasjon om prosjektet, og samtykke skriftlig til å delta. Vår vurdering er at informasjonsskrivet til utvalget er godt utformet.

INFORMASJONSSIKKERHET

Personvernombudet forutsetter at alle data behandles i tråd med Handelshøyskolen BI sine retningslinjer for datahåndtering og informasjonssikkerhet.

PROSJEKTSLUTT

Prosjektslutt er oppgitt til 31.08.2018. Det fremgår av meldeskjema og informasjonsskriv at datamaterialet vil anonymiseres ved prosjektslutt.

Anonymisering innebærer vanligvis å:

- slette direkte identifiserbare opplysninger som navn, fødselsnummer, koblingsnøkkel
- slette eller omskrive/gruppere indirekte identifiserbare opplysninger som bosted/arbeidssted, alder, kjønn

For en utdypende beskrivelse av anonymisering av personopplysninger, se Datatilsynets veileder: https://www.datatilsynet.no/globalassets/global/regelverk-skjema/veiledere/anonymisering-veileder-041115.pdf

Appendix 2– Interview guide; startups from current batch

- Welcome
- Introduction of us
- Informed consent
- Outline and time-duration of interview

Part 1: Introduction

- a) Could you quickly tell us about your company?
- b) Could you tell us a little about your position and roles?
- c) How long have you worked in this industry?
- d) Could you tell us about your past work-experience?
- e) Why did you sign up for the accelerator program?

Part 2: Failure

- a) Could you tell us about a time you experienced deviance from the time you did not meet the goal?
- b) What was the contributing factors?
- c) What did you learn the most from that specific failure?
- d) What concrete actions did you create to not repeat the mistake?

Part 3: Knowledge sharing

- a) How do you feel about being in an accelerator with startups as mature as your company?
- b) How do you perceive the climate? (i.e. supportive or competitive)
- c) Would you trust the feedback from your peers?
- d) Do you feel you get sufficient feedback on your progress, and input on your challenges from your peers?
- e) Would you consult other startups if you encounter a problem you cannot solve yourself?

Part 4: Failure and Knowledge sharing in the accelerator program

- a) How does the program encourage learning from failures?
 - i) Do you have any concrete examples?
 - ii) if not: how, in your words, could the program benefit from focusing on learning from failure and learning how to process failure?
- b) How do you feel deviance from desired goals is perceived in the program?
 - i) Do you look at that (deviance from desired results) as an opportunity to learn, or a setback in progress?
- c) Do you feel as confident in sharing your failures, as you do with your success?

- d) Would you trust the feedback from the facilitators?
- e) Do you feel you get sufficient feedback on your progress, and input on your challenges from the facilitators employees?

Part 5: Completion

- a) Is there anything you would change with the current program?
- b) Thank you for taking time off your busy schedule to talk to us.

Appendix 3 – Interview guide; startups from previous batch

- Welcome
- Introduction of us
- Informed consent
- Outline and time-duration of interview

Part 1: Introduction

- a) Could you quickly tell us about your company?
- b) Could you tell us a little about your position and roles?
- c) How long have you worked in this industry?
- d) Could you tell us about your past work-experience?
- e) Why did you sign up for the accelerator program?
- f) What batch were you participating in?

Part 2: Failure

- a) How do you define failure?
- b) Could you tell us about a time you experienced deviance from the time you did not meet the goal?
- c) Could you give us an example of how your perception of failure has changed, before and after participating in the accelerator program?
- d) Could you give us an example of how the accelerator program has helped you handle failure?

Part 3: Knowledge sharing

- a) How did the accelerator program measure progress?
- b) What was the strengths of being in an accelerator program with startups that were as mature as your company?
- f) To what degree did you trust the feedback from you peers?
- g) Did you feel that you got sufficient feedback on your progress and challenges from your peers?
- c) To what degree did you consult other startups if you encountered a problem you could not solve yourself?

Part 4: Knowledge sharing and failure

- a) How did you, after the program ended, try to keep in touch with the ecosystem that you became a part of?
- b) Through which activities did you experience that the knowledge sharing was most valuable?
- c) Through which situations did you experience that the knowledge sharing was most valuable?
- d) Could you tell us about a time, after the program ended, where you got value out of the network you got through the program?
- e) Do you have any concrete examples of a tool that you learned through the accelerator program that is useful for knowledge sharing?

Part 5: Specifics

- a) What concrete actions have you implemented in your business to learn from yours and your colleagues' failures?
- b) To what degree do you use the network you gained through the accelerator program, today?
- c) To what degree did you feel that you got sufficient feedback on your business progress?
- d) What concrete actions did you implement after the accelerator program to learn from failure?
- e) What are the most valuable tool you got from participating in the accelerator program?
- f) What would you have changed with the program?

Appendix 4 – Interview guide; Program managers

- Welcome
- Introduction of us
- Informed consent
- Outline and time-duration of interview

Part 1: Introduction

- a) Could you tell us a little about your position and roles?
- b) How long have you worked in this industry?
- c) Could you tell us about your past work-experience?

Part 2: The Accelerator program

- a) Could you quickly tell us about your company?
- b) Could you tell us about the program?
- c) How do you measure the startups progress?
 - i. How are these meetings organised?
 - ii. How participate in these meetings?

Part 3: Failure

- a) In your opinion, how do the participants handle setbacks and deviance from desired results?
- b) How do your program define failure?
- c) Do you have any concrete actions or practices to identify failures?
- d) Do you have any concrete actions or practises to share failures between companies?
- e) How does the program facilitate sharing progress?
- f) How does the program facilitate sharing challenges and setbacks?

Part 4: Knowledge sharing

- a) How does the program facilitate for the startups to help each other?
 - i. i.e. give feedback on shared experiences
- b) How does the program facilitate learning from each other?

Part 6: Handling and learning from failure

- a) How does the program facilitate handling setbacks?
- b) How do you make sure the participants actually learn and incorporate their knowledge in their work?

Part 7: Specific – Failure and knowledge sharing

- a) Could you tell us what you do when a company does not meet their KPI's?
- b) Why measure progress with KPI's?
- c) Could you tell us about some actions you do to prepare the participants for future failures?

- d) Of the events and experiences shared, approximately how many events are based on setback and deviances from desired results?
 - i. if yes, how does feedback on these stories vary from positive experiences
- e) What actions do you hold for the startups to share their experiences?
- f) Do you implement any actions towards those participants who don't share experiences?
- g) How do you create an environment which encourages sharing and support?
- h) What specific actions does the program hold to handle setbacks and deviances from desired results?

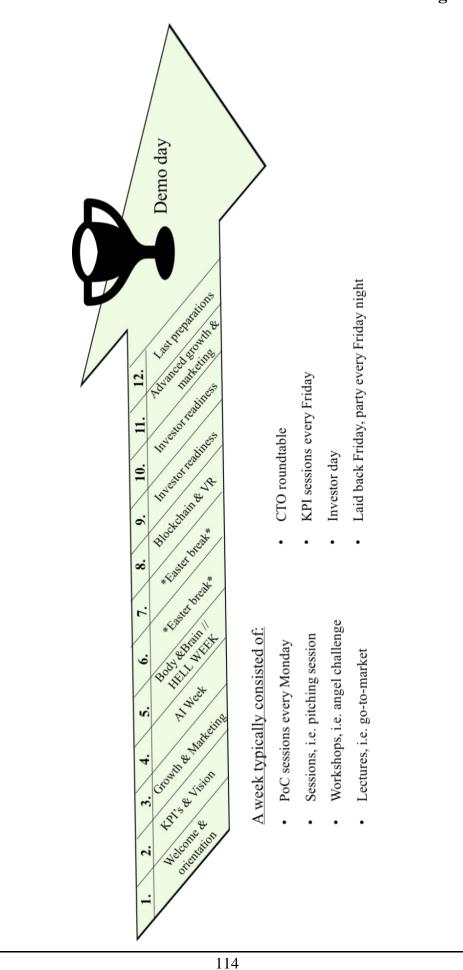
Part 8: Completion

- a) Is there anything regarding learning from or handling failure in this program that you have not had the chance to mention?
- b) Do you feel the importance of learning and handling failure is sufficiently incorporated in your accelerator program?
- c) Which participating startups could be interesting for supplementing the understanding of the program and its actions?

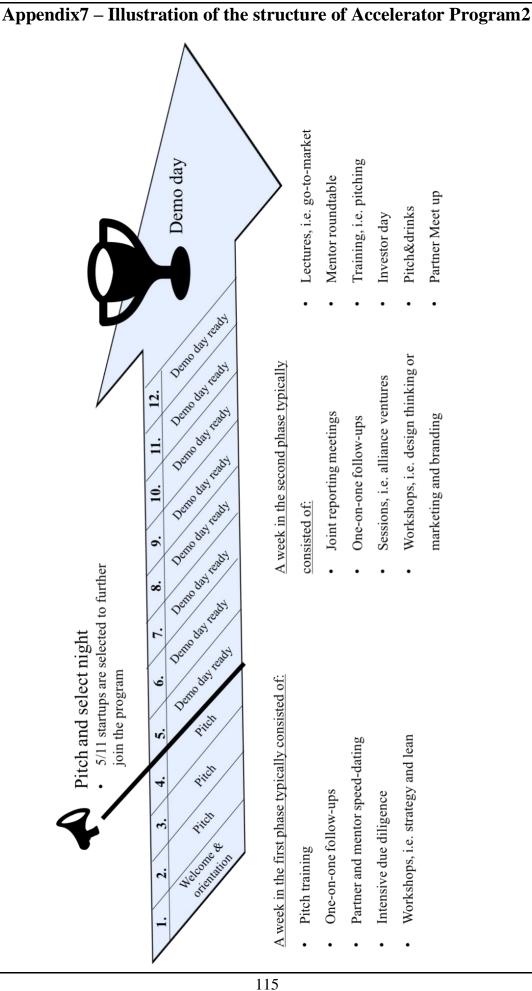
Themes	Our definition
Activities	The identified activities in an accelerator program
Peer-to-peer sharing	Knowledge sharing between the participating startups
Past experiences	Previous work, social, or educational experience of the informants
Culture and climate	Perceptions of culture and climate by the informants
Measurement of progress	The activities identified in the accelerator program aimed at measuring the progress of the startup
Industry	The industry of the accelerator program
Openness	How open the informants are to approach and share their knowledge with other actors in the accelerator programs ecosystem
Attitudes towards failure	How informants view failure
Maturity	How long the startup has excised
Humanity	Expressed care or interest in the wellbeing of other actors in the ecosystem
Diversity	Cultural and demographical differences between the participating startups
Definition failure	How the informants defines a failure
Social	Identified initiatives aimed at enhancing the social relationships between startups, and startups and facilitators
Handling of failure	How informants handle failure
Mentor	Refers to the mentors that is provided by the accelerator program for the startups

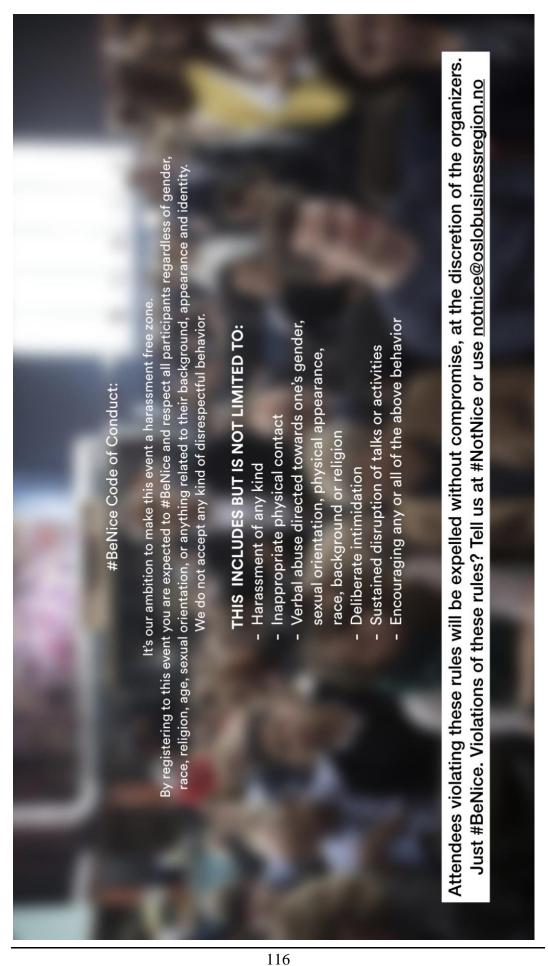
Appendix 5 – Definitions of the themes derived from focus coding

	Refers to the network that is provided by the accelerator program					
Network	for the startups					
Mandatory program	Attitudes towards mandatory participation in the accelerator					
	programs activities					
Focus: failure	How much focus the informants have on failure in their daily					
	work life					
Alumni	Refers to the startups who have participated in previous batches					
	of the accelerator program					
Relevant program	Startups perceived relevance of the accelerator program there are					
	participating in					
Example of failure	Concrete example of an experience with failure					
T.	Refers to the quotes where the interviewees describe the					
Time pressure	accelerator in relation to the period of time					
	An activity in the accelerator program, where it is arranged for					
Speed-dating	speed-dating between the startups and mentors or partners					
Legal documents	Identified legal documents regulation startups behaviour towards					
	sharing knowledge					
Confidence	Refers to the entrepreneurs confidence in sharing failures					









Appendix 8 - #BeNice Code of Conduct

Andreas Gravermoen

Marthe Hjelmås

FAILING TO SUCCEED- HOW DOES AN ACCELERATORS FACILITATE FOR LEARNING FROM FAILURE?

Preliminarily Thesis Report

Supervisor: Birgit Helene Jevnaker

Abstract

The Preliminarily Master Thesis Report, is a report of the future master thesis written through the programme Master of Science in Business – major in leadership and change. The report consists of five key part. First, an introduction of the background building up to a relevant main research question:

How does an accelerator facilitate for learning from failure?

Followed by a deepened research question:

Which actions hold by Katapult Accelerator can be identified that facilitate for learning from failure?

Second, a literature review is presented of the four key study areas; entrepreneurship, accelerators, failure and capability. A categorised literature review is added as an attachment to the report. Third, the desired method for research design, data collection, research setting, procedure and data analysis have been discussed. Fourth, the expected contributions of the final Master Thesis are presented, both theoretical and practical. Finally, an implementation plan has been developed as an overview of the future process.

Table of Content

1. Introduction	1
1.1 Introduction	1
1.2 Background	1
1.3 Research question	2
1.4 Structure of the Preliminarily Thesis Report	3
2. Literature review	3
2.1 Entrepreneurship	3
2.1.1 Entrepreneurial teams	4
2.1.2 Entrepreneurial opportunities	5
2.1.3 Entrepreneurial learning	6
2.2 Accelerators	6
2.3 Failure	7
2.4 Capability	8
3. Method	9
3.1 Research design	9
3.2 Data collection	10
3.2.1 Primary data	10
3.3 Research setting	12
3.4 Procedure	12
3.5 Data analysis	12
3.6 Research ethics	13
4. Expected Contributions	13
5. Implementation plan	15
6. Bibliography	16

1. Introduction

1.1 Introduction

Through this research paper, the authors aim to provide a thorough understanding of how an accelerator can facilitate for the participating startups to learn from their failure. It might be a cliché to say that the markets and customer demand continuously change, but it does not make it less true. Given rapid technological advances, big solid corporations are facing heavy competition from startups consisting of nothing more than four guys in a basement. Famous examples, such as Airbnb and Uber, have surpassed in scale colossal organisations within a strikingly short time (Goldstein, Lehmann, & Prax, 2015). Airbnb revolutionised the hospitality industry. In just four years, they offered more rooms and locations than The Hiltons (Goldstein et al., 2015). Now, through their sharing platform, they offer over 3.000.000 rooms for their 200.000.000 guests (Airbnb, 2015). However, 90% of all starts up fail (Patel, 2015).

1.2 Background

There are many researchers and practitioners who have contributed to the field of entrepreneurship. It has been developed various frameworks, methods, procedures, which all promise success, fame and glory. However, there seems to be little research on entrepreneurship with the focus on failure. The most used definition of *failure* in the Dictionary (2018) *is a lack of success*. However, in academia, failure is also regarded as a valuable tool to experiment and evolve, and are defined as *the deviation from expected and desired results* (Mark D Cannon & Edmondson, 2005).

Although, researchers argue numerous reasons why startups fail (Feinleib, 2011), some researchers argue the importance of experimenting, as a way to fail fast and thereby learn quicker (Cooper, 1990; Kolko, 2015; Ries, 2011; Wickham, 2006). Moreover, studies claim that startups who are prototyping on an early stage and demands user feedback on their products have an empirical higher success rate than its competitors who withhold their products until everything is "perfect" (Blank, 2013).

1

1.3 Research question

A rapidly growing phenomenon called accelerators (Cohen & Hochberg, 2014), are programmes designed for a group of selected startups to go through to help them fully capitalise on their idea and/or passion (Goldstein et al., 2015). More specifically, accelerator programs are programs of limited duration that help startups with the new venture process. Thus, these programs are considered as ecosystems for learning of failure for the startups and its team. However, little research has been done on how the accelerator program enable learning from failure (Hallen, Bingham, & Cohen, 2016). The key terms are further explained and discussed through part 2. Literature Review, however, little research have been conducted combining the relevant study fields; entrepreneurship, accelerators, failure and capability. Thus, the following research question has been developed:

How does an accelerator facilitate for learning from failure?

The research question is explorative and will be answered through a combination of theories and a case study of Katapult Accelerator. Katapult Accelerator is an accelerator located in Oslo, Norway. It is a 3 month hands-on program with specialised mentors, tools and platforms. On the February 20th 2018, the second round of the program will start. The company's focus is to contribute to solving the big challenges facing the planet and people through technology and entrepreneurialism.

In order to get a more specific understanding of how the findings can answered the main research question, an additional research question have been established:

Which actions hold by Katapult Accelerator can be identified that facilitate for learning from failure?

Reservations are made for the study questions to be changed during the process of writing the thesis, as it might be found more interesting questions to be answered.

1.4 Structure of the Preliminarily Thesis Report

The preliminarily thesis report is further written in four part. First, some of the foundational theories and study areas are presented, which will give the reader an overview of the key topic that will be studied in the final thesis. Second, the method of the case study is described as a desired method for the data collection. Third, a discussion of what theoretical and practical contributions the study might have is accessible. Finally, an implementation plan is developed.

2. Literature review

The literature review aims at giving a thorough overview of the relevant theory that will used to answer the research questions and as a starting point for the empirical survey that will be conducted. Throughout this literature review, several study areas are discussed; entrepreneurship, accelerators, failure and capability. Further, a categorised literature review is developed and field as an attachment.

2.1 Entrepreneurship

A substantial amount of literature has been developed within the entrepreneurship theory (Cunningham & Lischeron, 1991; Shook, Priem, & McGee, 2003). Research from prominent economists and scientists, such as Ahmad and Seymour (2008); Penrose (1995); Sarasvathy and Venkataraman (2011); Schumpeter (1934); Shane and Venkataraman (2000); Weber (2009), has been crucial for the development of entrepreneurship as a subject through its work and definitions. However, it has not been developed one definite definition, due to different perspectives within anthropology, economics, social sciences and management (H. Carland, Carland, Hoy, & Carland, 2002).

It is necessary to choose a definition for entrepreneurial activity, entrepreneurs and entrepreneurship. *Entrepreneurial activity is the innovative action of value creation, through the creation or expansion of economic activity, by identifying and exploiting opportunities, new products, processes or markets* (Ahmad & Seymour, 2008; Penrose, 1995). Thus, entrepreneurial activity is about identifying new opportunities and acting on these. It is important to note that action is significant, and intentions and ideas are little worth if they do not create real value through activities. Moreover, the entrepreneurial activity is not necessarily implying the creation of new businesses, as individuals and/or teams in existing organisations may display entrepreneurial activity.

Further, entrepreneurs are those individuals who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting opportunities new products, processes or markets (Ahmad & Seymour, 2008). Hence, the entrepreneurs are the drivers of the entrepreneurial activity. It is emphasized that an entrepreneurial team might also exhibit entrepreneurial activity. Finally, entrepreneurship is the phenomena associated with entrepreneurial activity (Ahmad & Seymour, 2008). It is chosen a broad definition on entrepreneurship, however it is crucial to acknowledge that entrepreneurship is an active process of experimentation in time (Harper, 2008).

2.1.1 Entrepreneurial teams

One of the most used definition of an entrepreneurial team is one written by Harper (2008) inspired by Bacharach (2005), an entrepreneurial team is a group of entrepreneurs with a common goal which can only be achieved by appropriate combinations of individual entrepreneurial actions. However, this definition can be argued to be wide, and a more specific definition is chosen. With inspiration from research done by J. W. Carland, Hoy, Boulton, and Carland (1984), Bird (1989) and Olson (1987), *entrepreneurial teams are defined as two or more individuals who jointly establish a business in which they have a financial interest* (Kamm, Shuman, Seeger, & Nurick, 1990).

Entrepreneurial teams can differ in several ways, the relevant dimensions for this paper is argued to be: the number of members, how the team members are arranged within the team, the presence of family member and the nature of their contribution, the timing of members' joining the team, and in terms of their communication pathways (Harper, 2008; Kamm et al., 1990). Harper (2008) and Bacharach (2006) have divided entrepreneurial teams into several categorisations, one of them called emergent entrepreneurial team. The concept of the emergent entrepreneurial team captures the idea that entrepreneurs can act together to make single findings of a specific opportunity (Harper, 2008). Which means that the

members of the emergent teams jointly discover and exploit opportunities that could not be uncovered by each working alone.

Further, the research argue that the team members depend on one another for having the capacity to identify and solve a range of entrepreneurial problems, which illustrates how entrepreneurial discovery can be the social result of joint inference and evaluation of creative ideas (Bacharach, 2006; Harper, 2008). The communication pathway might be varying, as some teams in some period may coordinate their actions without communicating with one another, or their joint actions may involve close collaboration and communication. Finally, Harper (2008) argue that entrepreneurial collaboration only can continue if participants think of themselves as members of a team and refrain from constantly assessing whether every joint initiative is in accordance with their individual preferences.

2.1.2 Entrepreneurial opportunities

As previously discussed, activities related to the creation of new businesses or the development of existing products, services, processes and markets are a result of opportunities perceived in the environment (Hansen, Shrader, & Monllor, 2011; Harper, 2008; Wickham, 2006). Entrepreneurial opportunities are found in the intersection of creativity, innovation and market opportunities (Blundel & Lockett, 2011). Researchers argue the entrepreneur is essential for exploitation of opportunities; their perception, experience, knowledge and motivation are decisive when it comes to discovering new opportunities and responding to the existing opportunities.

Further, through active learning over time, most entrepreneurs have acquired relevant knowledge that is essential for further success (Blundel & Lockett, 2011). Moreover, Wickham (2006) argue that the objective of the resources do not matter, but how the entrepreneur use the resources and how he continuously adapt to the other eventualities. This involves considering resources as a much wider definition than only physical assets, to imply intangible resources, such as knowledge and reputation, as well as processes that manipulate and benefit from the resources inside and outside the organisation. These resources and processes are argued to be learning (Wickham, 2006).

GRA 19502

2.1.3 Entrepreneurial learning

Identification of opportunities through entrepreneurial activity is usually shown through development of new ideas and the commercialisation of these (Blundel & Lockett, 2011). Entrepreneurial learning is the process until commercialisation of an idea developed internally in the venture. This process is driven by dynamics and continuous change due to the scope of the business idea (Blundel & Lockett, 2011; Wickham, 2006).

As previously stated, entrepreneurship is a richly studied field, and therefore it is developed several models that illustrate the process from idea to commercialisation. An approach based on the importance of knowledge is "The Lean Startup", which is a methodology that favours experimentation over complicated planning, customer feedback over intuition, and iterative design over traditional "big design up front" development (Blank, 2013; Ries, 2011). More, lean startup is based on the concept that the ventures that ultimately succeed go quickly from failure to failure, all the while adapting, redoing, and improving their original ideas as they continually learn from customers (Blank, 2013).

Two other models focusing one the experimental learning is Design Thinking (Buchanan, 1992; Dorst, 2011; Kolko, 2015) and the Stage-Gate Model (Cooper, 1990, 2008).

2.2 Accelerators

Business incubation has been broadly studied (Bruneel, Ratinho, Clarysse, & Groen, 2012; Hackett & Dilts, 2004), however, less attention has been paid on the acceleration process, which is not described extensively in scientific literature (Cohen & Hochberg, 2014). Without a formal definition of an accelerator or even a general prerequisite process for accelerators, different actors with various backgrounds can call themselves accelerators (Cohen & Hochberg, 2014; Frimodig & Torkkeli, 2013). In this paper, accelerators are classified as a company or a program that invests in and supports several startups, contributing to a faster growth of the new ventures (Goldstein et al., 2015).

Largely described, accelerators help new ventures identify customer segments, define and develop their initial products, and gain resources, such as capital and

employees (Cohen, 2013; Frimodig & Torkkeli, 2013). Further, they provide various services, such as mentoring, office space, training, knowledge, network opportunities and additional resources (Cohen, 2013; Hallen et al., 2016; Hochberg, 2016; Kanbach & Stubner, 2016; Malek, Maine, & McCarthy, 2014; Radojevich-Kelley & Hoffman, 2012). More specifically, accelerator programs are programs of limited duration that help startups with the new venture process.

Goldstein et al. (2015) argue that there are five common stages of an accelerator; *the selection process, the deal, the accelerator program, the completion* and *the alumni program. The selection process* is described by investigating and selecting startups (Goldstein et al., 2015; Kanbach & Stubner, 2016). The targeted startups can range from ventures with only a business idea through to startups that have a validated business model and a developed product with initial traction. Investigation and selection occurs through multiple channels, such as professional network and social media. *The deal* determines the contractual ties between the startup and accelerator, and is not necessarily financial (Frimodig & Torkkeli, 2013; Goldstein et al., 2015).

The program facilitates new ventures to receive hands-on support and gain access to the added knowledge, skills and entrepreneurial expertise offered by the accelerator. This access can be supported by established mentor network, workshops, exclusive events, and/or an alumni network (Goldstein et al., 2015). Most programs *complete* with a "demo day" where ventures pitch to a large audience of qualified investors. However, some accelerators do not offer such an event but instead choose to connect startups with investors individually during and after the program (Cohen, 2013; Goldstein et al., 2015; Hallen et al., 2016). Finally, the alumni program consists of startups that continue to develop and scale. In some cases, the startups receive follow-on funding from investors raising their valuations (Radojevich-Kelley & Hoffman, 2012).

2.3 Failure

Failure is an ever-present risk in every aspect of organizational life. Failure can be defined as a deviation from expected and desired results (Mark D Cannon & Edmondson, 2005), and consist of both avoidable errors and the unavoidable negative outcomes of risk taking and experimentation (M. D. Cannon &

Edmondson, 2001). With such a broad definition, failure includes both technical failures, e.g. failures regarding product development or systems, as well as interpersonal failures, e.g. failure to motivate or develop followers.

From an organisational perspective, early literature on failure sees the phenomenon as detrimental to the organization, and managers were concerned with reducing the risk of failures (March & Shapira, 1987), pointing blame (Shaver, 2012), or even hiding their tracks (Goleman, 1996). However, there is a substantial amount of emerging literature suggesting that failure can be a great source of learning (Mark D Cannon & Edmondson, 2005; McGrath, 1999; Shepherd, 2003). By nourishing an organisational climate that support failure, one could increase experimentation (Mark D Cannon & Edmondson, 2005) and foster a greater sense of psychological safety at the workspace (Carmeli, 2007).

By learning to cope with failure, research suggests you can even increase your self-efficacy, thereby being more resilient and optimistic towards other challenges at work (Bandura, 1977; Pajares, 1996; Kelley & Kelley, 2013). Yet, there seems to be little to none research pointed at how startup facilitators have routines or practises that help them cope, and maybe more importantly, learn from their failures. Startups are often indulged in frantic experimentation, and success often hinges on how well they can learn from their initial prototyping and the challenges they meet along the way (Blank, 2013).

2.4 Capability

Within entrepreneurship there are a substantial amount of failure, however the media frequently showcase now successful entrepreneurs who have failed time and time again without resignation. One could argue that an equally important aspect of learning from failure is learning to handle and process failure. Drawing knowledge from the field of social studies, Nussbaum (2011) argues that one need to shift the focus from solely focusing on results, to what an individual are actually capable to do and be. Jevnaker (2012) is drawing on a Nussbaum's view on capabilities by entrepreneurial partners in design innovation. How does an individual's or group's capability moderate to which extent one dears to fail again, and be receptive of its potential learning outcome?

Do all entrepreneurs get the same outcome of their learning experiences, and how does one's past experiences affect your capability to learn? Research done on serial entrepreneurs propose they are more likely learn from their earlier experience (Gruber et al., 2008) and achieve increased performance in their subsequent ventures (Eesley & Roberts, 2012; Paik, 2014; Parker, 2013). However, the research seems to be inconclusive as to why (Toft-Kehler, Wennberg, & Kim, 2014). On one hand, Zhang (2011) argues that serial entrepreneurs have increased chance of success given their acquired skills and social network. On the other hand, Eggers and Song (2015) research found that serial entrepreneurs are more likely to blame external factors. Further, this results in entrepreneurs changing industries, but fail to review their own leadership in terms of decision making, strategizing skills and managerial style. Thus, it seems learning from failure hinges on the entrepreneur's ability to correctly attribute the root cause of the failing venture. Linking it back to Nussbaum (2011) definition of capability, one could argue that the ability to see one's own shortcomings is of considerable importance to learn from failure.

3. Method

3.1 Research design

To best answer the research questions, the authors have chosen a qualitative exploratory case study approach to investigate how Katapult's accelerator program facilitate for learning from failure. Given that the research revolves around a specific program (i.e. the Katapult Accelerator), scholars argue that a case study design would best suit our research (Yin, 2013). A case study methodology allows us to incorporate multiple sources of evidence and focus on real-life events as they unfold (Yin, 2013).

When deciding which school of methodology to best fit the research, one could ask if the study measure well known concepts (e.g., through a quantitative approach) or exploring the narratives and ground observations based on theory (i.e. qualitative approach) (Bryman & Bell, 2015). Our study is exploring failure in a context sparsely researched. Thus, it is argued that a qualitative approach will be beneficial for revealing and identifying actions aimed at facilitation for learning from failure.

Bryman and Bell (2015) highlights the challenge with qualitative research and determining causation. Although some researchers believe technically proficient approaches often result in uninspiring findings (Fieldman, 2014), it is argued that an inductive reasoning approach will best help us understand the patterns and actions of our research objects. Inductive reasoning is best described as *developing theory from practice using interpretive epistemology* (Hatch & Cunliffe, 2013). As there are many facets that make up learning from failure, an inductive perspective reconciles well with an exploratory approach as it may minimize initial biases towards the research and let the researchers explore the phenomena they discover during their data gathering.

This is supported by Alvesson and Sköldberg (2009) who argue that an inductive approach should be free from predetermined theories, however this provides an unavoidable logical gap between theoretical generalization and empirical data (Ketokivi & Mantere, 2010). Building on this, it is acknowledged that established theories will influence the data gathering (Alvesson & Sköldberg, 2009), but may also allow the students to dive further into insight provided by the informants. Lastly, given the nature of the study the authors will apply an iterative approach, that is weaving back and forth between data and theory as new and enlightening data is collected (Bryman & Bell, 2015).

3.2 Data collection

The data will be derived from both primary and secondary sources. Retrieving the collected data from these two sources is necessary to understand and present both the narratives of our participants, as well as context and background information (Bryman & Bell, 2015). The primary data will mainly be retrieved in two phases and the secondary data will consist of company documents, news articles, and other reliable sources of information relevant to our research.

3.2.1 Primary data

As previously mentioned, our primary data be collected in three main phases.

3.2.1.1 Phase 1: Site inspection and initial informal interviews

In the first phase of data collection, we want to identify the suitable candidates to research. This is sometimes referred to as a window study (Czarniawska, 2014).

That is an exploratory approach to a site rather than a specific case, which coincide well with the inductive research method. We believe this is the best approach to get preliminary insights to the research site, its activities and the participants. Through the initial observations, the authors will define the research subject (Czarniawska, 2014). This approach is also partly due to the final selection process of teams accepted into the program will not be finished until the middle of February 2018. From the carefully selected teams Katapult grants entrance in the accelerator program, the students will identify those companies (no more than 2-3 teams) who would best fit the research. It will be conducted a series of informal interviews with the participants, and develop criteria by which it is finally select the desired teams.

3.2.1.2 Phase 2: Interviews and observations

Semi-structured interviews

Upon identifying the participants in phase 1, the authors will conduct a series of semi-structured interviews. These interviews will be based on an interview-guide that is aimed at identifying how the participants perceive their accelerator program to facilitate for learning from failure. The interview guide will encourage the participants to recollect stories of situations where a failure occurred or they had to deal failure. This narrative approach allows the students to compare informant stories for similarities, and later code the answers to identify recurring themes (Czarniawska, 2014).

Observation

Observations is an efficient way to identify factors that are either blind or forgotten by the participants through the interviews (Czarniawska, 2014). By observing these sites one day a week for a definite period, the authors gain a richer insight to the underlying norms and procedures of our research site. These observations may also illustrate perceptions we have uncovered through our interviews, witness the accelerator program in action and not just theory, and study our participants in a real-life setting. In combination with interviews, the students are confident that it will be possible to build solid and reliable data. Given our relation to the facilitators of the Katapult accelerator program, we hope to gain access to rich and enlightening data sources.

3.2.1.3 Phase 3: Supplement data

If the two previous phases fail to uncover rich narratives and insight to factors which are relevant for our research, it will be performed additional interviews to clarify and supplement our initial data.

Secondary data:

The collection of secondary data will be determined by the amount available and provided by Katapult.

3.3 Research setting

In this section, it will be presented the Katapult Accelerator program and the program participants that have been interviewed and studied. It is argued that the comparison of these probably different participants grants a better understanding of how the accelerator program facilitate for learning from failure and how this is perceived between different participants in the program.

3.4 Procedure

The data collection was done in two different phases. To find the most suitable candidates to interview, phase one consisted of visiting the two companies involved in an incubator program and performing several informal interviews with accelerator management, facilitators, and the people involved in the startups.

In the second step, we decided which candidates would best be able to give us insight into how these incubators facilitate for learning from failure and developed an interview guide for semi-formal interviews. The interviews were conducted at the workplace to both make the participants relax and feel sage (Kvale, 1996), but also evoke relevant work-life memories (Kristensen, 2004) and encourage a more elaborate storytelling (Magnussen, 2004). With the participants' approval, all interviews were audio recorded and transcribed within two days to not lose any valuable insight.

3.5 Data analysis

As previously mentioned, one of the challenges with qualitative data is to code the data collected through the research. Grounded theory is deriving theories that are

derived from data, where data collection, analysis and theory stand in close relationship to one another (Strauss & Corbin, 1998). This iterative approach enables the researchers to collect and analyse the data in tandem, applying more theories as the process continues and the researchers know more about the research subjects. Of the many tools one could use from grounded theory, the data will be coded to properly interpret our interviews and observations. From this coding, it will be possible to identify patterns, common values and perceptions, and the underlying social mechanisms present on the research site.

3.6 Research ethics

All participation in this study will be voluntary. We will establish a main contact person in the accelerator, through which we will negotiate access and details of conduct in our case study. Our research focus is not on any sensitive personal information or company competitive issues. Prior to phase one of the data gathering, it will be created a consent form or letter of agreement which must be signed by all participants for the authors to use the data in this thesis. The form will ensure anonymity and their rights to withdraw from the study at any given time without reason. The transcripts will be marked as confidential and kept within the department of leadership and organizational psychology at BI Norwegian Business School in Oslo.

4. Expected Contributions

The results of this research will have both theoretical and practical implications within the field of entrepreneurship and failure, with potentially significant importance for the development of accelerator programs. From a theoretical perspective, the results will provide insight into how facilitation for learning from failure affect organisational learning and individual capability. The individual academic fields incorporated in the research have been studied in silos, and the results that will be found in this research will fill a gap in the literature.

Beyond academics, this research has practical application for all who offer similar accelerator programs. An accelerators program is only as good as its elements, and given the wide consensus of the importance of facilitating for failure, the research results will provide Katapult valuable evaluation of their program and/or show the fruits of these initiatives to other actors in the industry.

5. Implementation plan

The authors will throughout the duration of this period research existing literature within the respected fields of interest. Below, it is presented a tentative implementation plan for the thesis, where each "X" symbolises completion of the task.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Preliminary Thesis (20%)	X								
Literature and Method	X								
First contact with research site	X								
Begin observations		Х	Х	Х					
Conduct interviews		Х	Х	Х					
Review current data			Х	Х					
Perform additional interviews Transcription Analysis of data				Х	Х				
Write up results					Х				
Write up discussion						X			
Finnish thesis						Х			
Final review							X		

6. Bibliography

- Ahmad, N., & Seymour, R. G. (2008). Defining entrepreneurial activity: definitions supporting frameworks for data collection.
- Airbnb. (2015). A World of Belonging. Retrieved from https://blog.atairbnb.com/worldbelonging/?_ga=2.49464358.1465516634.1515431243-125851991.1456759773&_gac=1.188649946.1515431243.Cj0KCQiAysz SBRDJARIsAHAqQ4rpKDCpWIhJOekMeJ-
 - ZTl2V2MVfi8pQeODBC7TY0tlI-UCHVlbFzSQaAuycEALw_wcB
- Alvesson, M., & Sköldberg, K. (2009). *Reflexive methodology: New vistas for qualitative research*: Sage.
- Bacharach, M. (2005). Foreword: teamwork. Gold, Teamwork–Multi-Disciplinary Perspectives, Palgrave Macmillan: xxi-xxv.
- Bacharach, M. (2006). Beyond individual choice: teams and frames in game theory: Princeton University Press.
- Bird, B. J. (1989). Entrepreneurial behaviour. *Engineering Management Journal*, *1*(4), 37-40.
- Blank, S. (2013). Why the lean start-up changes everything. *Harvard business* review, 91(5), 63-72.
- Blundel, R., & Lockett, N. (2011). *Exploring entrepreneurship : practices and perspectives*. Oxford: Oxford University Press.
- Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. (2012). The Evolution of Business Incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation*, 32(2), 110-121.
- Bryman, A., & Bell, E. (2015). *Business research methods*: Oxford University Press, USA.
- Buchanan, R. (1992). Wicked problems in design thinking. *Design issues*, 8(2), 5-21.
- Cannon, M. D., & Edmondson, A. C. (2001). Confronting failure: antecedents and consequences of shared beliefs about failure in organizational work groups. *Journal of Organizational Behavior*, 22, 161-177. doi:DOI 10.1002/job.85
- Cannon, M. D., & Edmondson, A. C. (2005). Failing to learn and learning to fail (intelligently): How great organizations put failure to work to innovate and improve. *Long Range Planning*, *38*(3), 299-319.
- Carland, H., Carland, J. W., Hoy, F., & Carland, J. (2002). Who is an entrepreneur? Is a question worth asking. *Entrepreneurship: Critical perspectives on business and management,* 2(178), 47-67.
- Carland, J. W., Hoy, F., Boulton, W. R., & Carland, J. A. C. (1984). Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of management review*, 9(2), 354-359.
- Carmeli, A. (2007). Social capital, psychological safety and learning behaviours from failure in organisations. *Long Range Planning*, 40(1), 30-44.
- Cohen, S. (2013). What do accelerators do? Insights from incubators and angels. *innovations*, 8(3-4), 19-25.
- Cohen, S., & Hochberg, Y. V. (2014). Accelerating startups: The seed accelerator phenomenon.
- Cooper, R. G. (1990). Stage-gate systems: a new tool for managing new products. Business horizons, 33(3), 44-54.

- Cooper, R. G. (2008). Perspective: The stage-gate® idea-to-launch process update, what's new, and nexgen systems. *Journal of product innovation management*, 25(3), 213-232.
- Cunningham, J. B., & Lischeron, J. (1991). Defining entrepreneurship. *Journal of small business management*, 29(1), 45.
- Czarniawska, B. (2014). Social science research: From field to desk: Sage.
- Dictionary, O. E. (2018). Definition of failure in English. Retrieved from https://en.oxforddictionaries.com/definition/failure
- Dorst, K. (2011). The core of 'design thinking'and its application. *Design studies*, 32(6), 521-532.
- Eesley, C. E., & Roberts, E. B. (2012). Are you experienced or are you talented?: When does innate talent versus experience explain entrepreneurial performance? *Strategic Entrepreneurship Journal*, 6(3), 207-219.
- Eggers, J., & Song, L. (2015). Dealing with failure: Serial entrepreneurs and the costs of changing industries between ventures. *Academy of Management Journal*, 58(6), 1785-1803.
- Feinleib, D. (2011). Why startups fail: and how yours can succeed: Apress.
- Frimodig, L., & Torkkeli, M. (2013). Success Factors of Accelerators in New Venture Creation. Paper presented at the ISPIM Conference Proceedings.
- Goldstein, A., Lehmann, E. J., & Prax, E. (2015). Design Princibles for Building a Successful Corporate Accelerator. Retrieved from
- Goleman, D. (1996). Vital lies, simple truths: The psychology of self deception: Simon and Schuster.
- Gruber, M., MacMillan, I. C., & Thompson, J. D. (2008). Look before you leap: Market opportunity identification in emerging technology firms. *Management Science*, 54(9), 1652-1665.
- Hackett, S. M., & Dilts, D. M. (2004). A systematic review of business incubation research. *The Journal of Technology Transfer*, 29(1), 55-82.
- Hallen, B. L., Bingham, C., & Cohen, S. (2016). Do accelerators accelerate? The role of indirect learning in new venture development.
- Hansen, D. J., Shrader, R., & Monllor, J. (2011). Defragmenting definitions of entrepreneurial opportunity. *Journal of small business management*, 49(2), 283-304.
- Harper, D. A. (2008). Towards a theory of entrepreneurial teams. Journal of Business Venturing, 23(6), 613-626.
- Hatch, M. J., & Cunliffe, A. L. (2013). Organization theory: modern, symbolic and postmodern perspectives: Oxford university press.
- Hochberg, Y. V. (2016). Accelerating entrepreneurs and ecosystems: The seed accelerator model. *Innovation Policy and the Economy*, *16*(1), 25-51.
- Kamm, J. B., Shuman, J. C., Seeger, J. A., & Nurick, A. J. (1990). Entrepreneurial teams in new venture creation: A research agenda. *Entrepreneurship theory and practice*, 14(4), 7-17.
- Kanbach, D. K., & Stubner, S. (2016). Corporate accelerators as recent form of startup engagement: The what, the why, and the how. *Journal of Applied Business Research*, 32(6), 1761.
- Kelley, D., & Kelley, T. (2013). *Creative confidence: Unleashing the creative potential within us all*: Crown Pub.
- Ketokivi, M., & Mantere, S. (2010). Two strategies for inductive reasoning in organizational research. *Academy of management review*, 35(2), 315-333.
- Kolko, J. (2015). Design thinking comes of age. *Harvard business review*, 93(9), 66-71.

Kristensen, T. (2004). The physical context of creativity. *Creativity and innovation management*, 13(2), 89-96.

- Kvale, S. (1996). InterViews—An Introduction to Qualitative Research Interviewing Sage Thousand Oaks. *CA Google Scholar*.
- Lazear, E. P. (2005). *Leaders and entrepreneurs: where they produce the most value.* Paper presented at the Allied Social Science Associations Annual General Meeting, Philadelphia.
- Malek, K., Maine, E., & McCarthy, I. P. (2014). A typology of clean technology commercialization accelerators. *Journal of Engineering and Technology Management*, *32*, 26-39.
- March, J. G., & Shapira, Z. (1987). Managerial Perspectives on Risk and Risk-Taking. *Management Science*, 33(11), 1404-1418. doi:DOI 10.1287/mnsc.33.11.1404
- McGrath, R. G. (1999). Falling forward: Real options reasoning and entrepreneurial failure. *Academy of management review*, 24(1), 13-30.
- Nussbaum, M. C. (2011). Creating capabilities: Harvard University Press.
- Olson, P. D. (1987). Entrepreneurship and management. *Journal of small business* management, 25(3), 7.
- Paik, Y. (2014). Serial entrepreneurs and venture survival: Evidence from US venture-capital-financed semiconductor firms. *Strategic Entrepreneurship Journal*, 8(3), 254-268.
- Parker, S. C. (2013). Do serial entrepreneurs run successively better-performing businesses? *Journal of Business Venturing*, 28(5), 652-666.
- Patel, N. (2015). 90% Of Startups Fail: Here's What You Need To Know About The 10%. *Forbes. com.*
- Penrose, E. T. (1995). *The Theory of the Growth of the Firm*: Oxford University Press, USA.
- 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*, 8(2), 54-70.
- Ries, E. (2011). The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses: Crown Business.
- Sarasvathy, S. D., & Venkataraman, S. (2011). Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship theory and practice*, 35(1), 113-135.
- Schumpeter, J. A. (1934). The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle (Vol. 55): Transaction publishers.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, 25(1), 217-226.
- Shaver, K. (2012). *The attribution of blame: Causality, responsibility, and blameworthiness*: Springer Science & Business Media.
- Shepherd, D. A. (2003). Learning from business failure: Propositions of grief recovery for the self-employed. *Academy of management review*, 28(2), 318-328.
- Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture creation and the enterprising individual: A review and synthesis. *Journal of Management*, 29(3), 379-399.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*: Sage publications.

- Toft-Kehler, R., Wennberg, K., & Kim, P. H. (2014). Practice makes perfect: Entrepreneurial-experience curves and venture performance. *Journal of Business Venturing*, 29(4), 453-470.
- Weber, M. (2009). *The theory of social and economic organization*: Simon and Schuster.
- Wickham, P. A. (2006). Strategic entrepreneurship: Pearson Education.
- Yin, R. K. (2013). Case study research: Design and methods: Sage publications.
- Zhang, J. (2011). The advantage of experienced start-up founders in venture capital acquisition: evidence from serial entrepreneurs. *Small Business Economics*, *36*(2), 187-208.