SeAMK
SEINÄJOEN AMMATTIKORKEAKOULU
SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Thuy An Truong

Empowering Students' Entrepreneurship

A Guide to Designing a Student-run Pre-incubator Program

Thesis
Spring 2024
Bachelor of Business Administration, International Business Degree Programme

SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Thesis abstract

Degree Programme: International Business

Author: Thuy An Truong

Title of thesis: Empowering Students' Entrepreneurship: A Guide to Designing a Student-run Pre-incubator Program

Supervisor: Nicolás Martínez

Year: 2024 Number of pages: 53 Number of appendices: 4

This thesis investigates the needs and challenges faced by higher education international students in Seinäjoki who aspire to create their startups. It addresses these problems by designing a student-run pre-incubator program guide. The guide will enable the Seinäjoki Entrepreneurship Society (SeiES), the commissioner of the thesis, to plan and organize the pre-incubator program for the students.

The comprehensive literature review of the thesis covers the definitions of a startup, the factors behind successful startups, the reasons for startup failures, and a comparison of a startup support system involving pre-incubator, incubator, and accelerator. The thesis also looks at entrepreneurial support systems for university students in Finland.

Qualitative data was collected through interviews with three groups: international students, SeiES's board members, and organizers of similar startup support programs. Data collection included insights from Finnish incubator and accelerator programs, an analysis of international students' needs and challenges, and SeiES's operational capabilities. The conclusions offer a structured guide with a timeline for SeiES to develop and implement an effective pre-incubator program, highlighting the importance of participant feedback, skills development, and program's continuous improvement.

[1] Keywords: Incubator, startup, pre-incubator, student entrepreneurship, guide

TABLE OF CONTENTS

Pictures, Figures and Tables

1 INTRODUCTION

In 2022, Finland experienced a sharp surge in international student admission applications, with a notable increase of approximately 62 per cent compared to the previous year. The number of first-time residence permits granted to students reached 8,383 in 2022, a significant increase of 43.6 per cent compared to 2021 (Myklebust, 2023). This increase reflects Finland's growing attractiveness as an educational destination, reflecting the success of national efforts to promote Finnish educational opportunities and lifestyles.

Amid this influx of students, not all students have the opportunities to study in the capital or bigger cities but spread to different small towns in other regions. Seinäjoki University of Applied Sciences (SeAMK), located in the South Ostrobothnia region, is becoming a new popular study destination. SeAMK has experienced a remarkable increase in popularity as a sought-after study destination, evident in the growing number of applicants across various degree programs. The new Bachelor of Engineering in Agri-food Engineering, with 357 candidates for twenty-five positions, highlights the immediate resonance of the program. The Bachelor of Business Administration in International Business recorded a remarkable increase of 246%, attracting 757 candidates compared to the previous year. Similarly, the Bachelor of Health Care in Nursing saw a 37% rise with 502 applicants. Other degree and the English-language master's program in Business Administration, International Business Management, showed an impressive 193% increase, drawing 489 applicants compared to the 2020 application. This influx of interest signifies SeAMK's growing stature as an educational hub (Seinäjoki University of Applied Sciences, 2022). As the number of international students continues to surge and the diverse skills and innovative potential they bring, it becomes increasingly essential that international students have the support infrastructure beyond the university.

In this evolving ecosystem landscape, the Seinäjoki Entrepreneurship Society (SeiES) has become a key player in creating an ecosystem that can foster and support students' entrepreneurial aspirations. All SeiES's events are in English, allowing not only Finnish-speaking students but also international students to join. The role of SeiES extends traditional academic boundaries and offers a collaborative and supportive environment tailored to the unique challenges and opportunities of students. This holistic approach aims to not only at

empower students in their entrepreneurial journey but also to contribute to the broader socio-economic development of the region (Seinäjoki Entrepreneurship Society - SeiES, 2024).

This thesis will first gain insights from two successful students-run programs around Finland and understand their dynamics and impact. These programs are organised by Entrepreneurship Societies, which are student-run non-profit organizations promoting entrepreneurship in universities (Startup Foundation, 2022). Second, this thesis seeks to understand SeiES's operational capabilities and the needs and challenges of international students wanting to pursue entrepreneurship in Seinäjoki. Third, the thesis uses these understandings to create a customized pre-incubator program specifically designed to support student entrepreneurial ventures, with a special focus on international participants. The thesis goal is to provide SeiES with a guide to design a pre-incubator program that not only offers a structured environment where students can transform their innovative ideas into viable startup but also positively impacts the internationalisation of the regional business scene.

1.1 Objectives and limitations

The objectives of the thesis are the following:

- Identifying existing entrepreneurship support for international student in Finland
- Identifying the specific needs and challenges faced by higher education students in Seinäjoki who want to create a startup.
- Assessing the operational capability of Seinäjoki Entrepreneurship Society (SeiES) in supporting student entrepreneurship.
- Examining and benchmarking successful entrepreneurship programs nationwide to gain insights and understand their impact.
- Identifying successful entrepreneurship program practices related to collaborations and curriculum that can be adapted to Seinäjoki.
- Outlining the structure of a pre-incubator program.

This thesis has certain limitations that could affect the validity of the research if not adequately mitigated. Firstly, the primary focus on Seinäjoki introduces a geographical restriction that requires a cautious interpretation of the study's applicability beyond this region.

While the insights gained are valuable for understanding business practices in Seinäjoki, the unique characteristics of this city may not be universally representative, which prompts careful consideration of contextual differences in other regions.

Secondly, the analysis of existing support practices encounters a potential obstacle to data availability. The study relies on English-language sources, and the limited accessibility of relevant data may hinder the in-depth review of entrepreneurship practices. This limitation underlines the importance of recognizing gaps in understanding existing support frameworks due to language barriers.

Thirdly, the challenge lies in the dependency on participant cooperation for the effectiveness of the study. The quality and reliability of the research results depend on how cooperative and willing the participants are to provide accurate and detailed information. Variability of participant responses, potential reticence, or incomplete disclosure could lead to nuances that affect the overall research outcomes. The study acknowledges this challenge and attempts to mitigate biases through careful data validation and analysis.

In addition, the study faces inherent limitations arising from resource and time constraints that significantly influence research of successful programs at the national level. The nature of the research, involving in-person interviews and data retrieval from various organizations, requires a significant investment of time. However, due to the limited time, the scope of data collection may be reduced. This restriction particularly affects the study's ability to thoroughly explore a wide range of regional programs. Studying entrepreneurship support practices requires extensive engagement with stakeholders, and this complicated process depends on the availability of time for meaningful interactions and data collection.

The research encounters a limitation by assuming a static environment within Seinajoki's business ecosystem and political landscape. However, this assumption may not be fully in line with the dynamic nature of the local economy and the political scene, which could undergo significant changes over time.

1.2 Background information

Seinäjoki Entrepreneurship Society (SeiES) is the commissioner of this thesis. The thesis topic was proposed by the author after being in the SeiES's Board for a year and recognized the lack of pre-incubator program for higher international students in Seinäjoki. SeiES was founded on April 3, 2017, as a non-profit, multidisciplinary association for higher education students in the Southern Ostrobothnia region. Positioned as a guiding beacon, SeiES seeks to instill entrepreneurial aspirations and foster an entrepreneurial mindset among students, drawing inspiration from theories in business studies (Seinäjoki Entrepreneurship Society - SeiES, 2024).

With a central focus on inspiring and guiding higher education students in Seinäjoki toward entrepreneurship, SeiES organizes business and entrepreneurship related events, providing networking opportunities, skills development, and exposure to real-world challenges. Through active collaboration with local companies and organizations, SeiES facilitates connections between students and entrepreneurs while equipping students with essential skills for success, empowering students for future endeavors as entrepreneurs or valuable contributors to established enterprises.

SeiES's establishment and operation of SeiES align with key theories in business studies, particularly those focusing on entrepreneurship and organizational development. One such theoretical lens is the resource-based view (RBV), suggests that if valuable resources are possessed by few firms, those firms that can control these resources potentially generate sustained competitive advantage (Barney, 1991). SeiES is a valuable resource for students, offering networking opportunities, skills development workshops and exposure to real-world challenges, aligning with the RBV by equipping students with essential resources for business success. SeiES plays a key role in enabling students who are not just job seekers but proactive creators and contributors to the ever-changing landscape of business and innovation.

1.3 Research questions.

Question: How can a pre-incubator program for SeiES effectively support the higher education international students' startup ventures and entrepreneurship journeys in Seinäjoki?

- Sub-question 1: What are the needs and challenges international students face in creating a startup or planning to create a start-up?

- Sub-question 2: What are the steps to create an effective incubator program?

1.4 Structure of the thesis

There are a total of 4 sections with 5 chapters in this thesis as illustrated in Figure 1. The theoretical and empirical research with sub-sections supporting the formation of an incubator program guide.

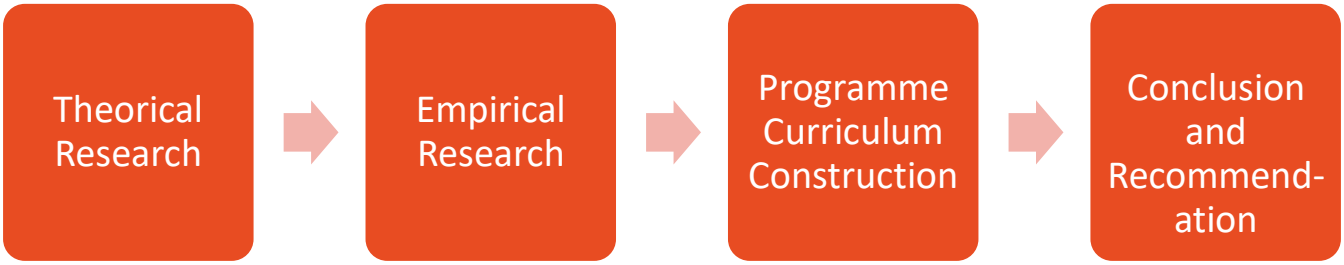

Figure 1. Structure of the thesis.

Chapter 1 introduces the objectives of the research topic, background information, research questions, and outlines the structure of the thesis. Chapter 1 also details the research design, including data collection methods, sample selection, data analysis techniques and justifies the methodology chosen. Chapter 2 engages in a review of established theoretical frameworks relevant to startups, the role of entrepreneurship societies in the entrepreneurship ecosystem, and incubator programs. The review meticulously dissects scholarly contributions that shed light on the fundamental characteristics of startups, offering nuanced perspectives on their inception, growth trajectories, and evolutionary patterns. Furthermore, it scrutinizes the broader entrepreneurship ecosystem to identify contextual variables that

influence the development of start-ups. The study extends to theoretical constructs concerning entrepreneurship societies within academic institutions, seeking to unravel their pivotal roles in shaping entrepreneurial attitudes and behaviors in the student population. In addition, the chapter explains the theoretical foundations of incubator programs, intending to understand the complicated mechanisms by which these entities facilitate the growth of startups.

In Chapter 3, the author of the thesis seeks to gains insights from successful entrepreneurship programs in Finland through qualitative data collection and thematic and narrative analyses. The objectives are to understand the main success factors and possible pitfalls of the other programs and find out what practices can be adapted to the context of Seinäjoki. This chapter also collects and presents the needs and challenges intentional students face when starting a company in Seinäjoki and analyzes SeiES's operational capabilities. Chapter 4 details the guide on how to design the pre-incubator program from the insights gained to support student entrepreneurial ventures, with a focus on international participants. It outlines the structure of the program, the main components, reasoning behind its design and metrics to evaluate the effectiveness of the proposed pre-incubator. The last Chapter 5 summaries keys findings and gives the conclusions of the thesis.

1.5 Methodology

Qualitative research methods will be employed in this study due to the nature of the research goal, which is to develop a guide for creating an effective incubator program. Qualitative methods are well-suited for exploratory research that aims to understand and interpret complex phenomena, capture rich and context-specific data, and provide insights into the perspectives of participants (Merriam & Tisdell, 2015). The data used for this thesis will be gathered from face-to-face interviews and secondary data from various sources content, enabling the research thesis to uncover the implicit knowledge and subjective viewpoints of key informants, including founders, entrepreneurs, educators, and program coordinators. This holistic understanding is crucial for developing a guide that not only captures best practices from other organizations in Finland but also considers the unique context of the target environment, in this case Seinäjoki (Denzin & Lincoln, 2005). The purposeful sampling technique is used for its advantages of identifying and selecting insightful cases, ensuring the

effective use of limited resources (Patton, 2002): “Purposeful sampling for qualitative data collection and analysis in mixed method implementation research”. The individuals chosen for this sampling technique usually have a keen interest in the topic, are exceptionally experienced and knowledgeable (Cresswell & Clark, 2007). Bernard (2002) added that it is also crucial to consider the participants’ willingness to engage, their availability and their ability to articulate and reflectively communicate their experiences.

The individuals and groups of individuals carefully selected are founders, organizers of business programs, SeiES board members and international students. Since the author of the thesis used to be the Vice Chairperson of SeiES in the years 2022–2023 and has been involved in the student startup scenes in Finland for a few years, participants for the interviews were decided from the author’s network of potential interviewees who may have the insights to share. The selection criteria are in line with the objective of the thesis as such:

1. Identify existing entrepreneurship support practices in Seinäjoki:

- SEiES Board members, Chairperson and Vice Chairperson, are selected for their direct involvement and knowledge of existing practices to support student entrepreneurship in Seinäjoki. Their insights can provide a comprehensive overview of the current business landscape, including existing SeiES’s initiatives, resources available for a potential new program, and other stakeholders’ opinions.

2. Identify the specific needs and challenges faced by higher education students in Seinäjoki who want to create a startup or want to learn more about this process:

- The target audience interviews are currently enrolled international students at Seinäjoki University of Applied Sciences (SeAMK) who express interest in entrepreneurship. 5 students are selected for the interview not based on their gender, years of study, or degree program, but on their status as an ongoing international student and their aspiration to explore entrepreneurship or to develop a business idea. The aim of the interviews is to gather information that highlights unique needs, challenges, or opportunities in the entrepreneurial ecosystem for this demographic group. Although the focus group is international students, the pre-incubator program also

allows participation of those who are exchange and Finnish students, and their contributions are therefore taken into consideration.

3. Examining and benchmarking successful entrepreneurship programs nationwide to gain insights and understand their impact:

- Interviews with Hatch incubator founder and Forward Accelerator's chief organization to obtain comparative data and information on best practices. Since the interviewees both have firsthand experience working with student entrepreneurs and operating a student-run program, they can provide helpful knowledge into the program curriculum, success factors and unique challenges faced when organizing such programs. The data collected during these interviews will be used to develop the local incubator program in Seinäjoki.

Narrative analysis and thematic are the two main techniques used for the data analysis segment. Narration analysis includes the study of stories or reports shared by participants to understand their experiences, perspectives and meanings attributed to their narratives (Riessman, 2008). This approach is advantageous in exploring the structure, content, and context of the narratives and identifies key topics within the narratives. Thematic analysis, on the other hand, involves finding patterns or themes across the dataset, focusing on the content, and meaning of the data. This method systematically codes and categorizes data to identify recurring themes or patterns that provide information about research questions or objectives (Braun & Clarke, 2006).

The video interview transcripts and written materials collected from different groups will be analyzed using these two techniques to gain a comprehensive understanding of the participants' perspectives, experiences, and insights related to student entrepreneurship support. Narrative analysis will help to discover the individual narratives shared by participants, while thematic analysis will identify common themes, topics, or issues emerging across the dataset. Using both approaches, the analysis aims at the comprehensive exploration of the research topic and the enhancement of the study's validity and reliability.

2 LITERATURE REVIEW

In Chapter 2, the author of the thesis will review the literature on startups, focusing on the essential factors of success and failure, as well as the roles of startup support organizations like incubators and accelerators. In addition, the chapter will address the cultural challenges for foreign entrepreneurs in Finland. The objective of this review is to provide an insight into the factors influencing the success of the startup and the support structures available to them.

2.1 Start-ups

Startups have been an area of interest for researchers and decision makers for decades. The earliest recorded usage of the term "startup" can be attributed to the 1970s, when it was used to describe young companies in the technology sector. As the entrepreneurial landscape undergoes transformations, startups have experienced significant changes driven by advances in technology, market dynamics and changes in consumer behavior (MassLight Team, n.d.). Blank and Dorf (2012) define startups as entities characterized by their proactive use of technology to disrupt or create new markets, the ambition for rapid scalability, and the ongoing search for a viable and repeatable business model. A repeatable and scalable business model is a model in which the same processes are used to produce the same results over time. This type of model is beneficial because it ensures that the products or services offered are consistent in quality and quantity no matter the rate of growth of the company (FasterCapital, n.d.).

A key factor that distinguishes startups from other companies is speed and growth. Startups aim to build on ideas very quickly through a process called iteration with continuous product improvement through feedback and usage data (Baldridge, 2022). Eisenmann et al. (2013) highlighted this characteristic with the approach to entrepreneurship of startups. In this approach, startups can quickly test their hypotheses and gather real-world feedback through building Minimum Viable Products (MVPs). In hypothesis-oriented approach as seen in Figure 2, the startup founders translate their vision into business model hypotheses, then test the hypotheses with several "minimum viable products", each of which represents the

smallest set of features/activities necessary to rigorously validate a concept (Eisenmann et al., 2013).

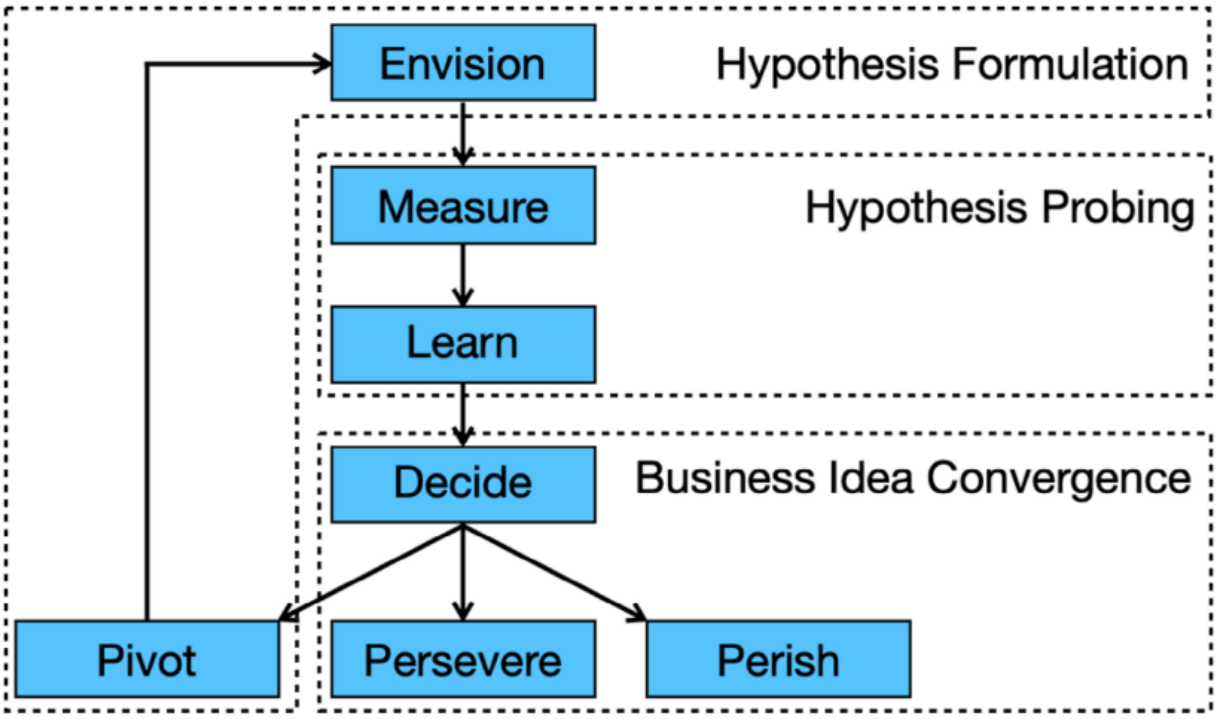

Figure 2. The hypothesis-oriented approach (Adapted from Eisenmann et al., 2013).

With the results of the tests, the founders must then decide whether to persevere with their business model, "pivot" by changing some elements of the model or give up entirely on the startup (Eisenmann et al., 2013). The approach focuses not on waiting until a product is fully developed but on engaging in an ongoing process of validation, adaptation, and refinement based on customer feedback. By adopting this hypothesis-oriented approach, startups mitigate risks, optimize resource efficiency, and ensure that their products or services with market needs, fostering a culture of continuous improvement and adaptability.

While startups improve their products, they also generally seek to develop their customer base quickly to establish increasingly larger market shares (Baldridge, 2022). A stronger customer base helps startups to raise more money, this in turn grows their products and audience even more. The overarching goal of this accelerated growth and innovation is for startups to gear towards achieving the milestone of going public. The act of transitioning a

company to public investment platforms not only signifies a maturation in its operational trajectory but also creates an opportunity for early investors to liquidate their holdings and realize returns, termed as an "exit" within the startup lexicon.

2.2 Factors of a successful startup?

Although there are several studies that try to define what a successful startup is, it is observed that there is no standard definition of success in literature. However, all the definitions have “the growth of the company” or employment generation as a common feature of startup. Santisteban and Mauricio (2017), after reviewing 74 different studies, presented in their Systematic Literature Review 21 critical success factors for startups. In Table 1, these factors are grouped into three categories of organization, individual and external, but they are not ranked.

Table 1. Factors influencing startups’ success (F1-F5. Santisteban & Mauricio, 2017).

Table 6
FACTORS THAT INFLUENCE THE SUCCESS OF THE STARTUP

Id	Factor	Definiti	References
F1	Experience in the industry of the founding team (+)	Founders with previous experience in the industry have a solid network of contacts that facilitate the development and growth of the company.	(Spyros & Nickolaos, 2012; Preisendorfer et al., 2012; Anh et al., 2012; Baptista et al., 2007; Bou-Wen et al., 2006; Colombo et al., 2004; Dautzenberg & Reger, 2010; Friar & Meyer, 2003; Gartner & Liao, 2012; Hyder & Lussier, 2016; O'Regan & Sims, 2008; Pugliese et al., 2016; Rojas & Huergo, 2016; Thiranagama & Edirisinghe, 2015; Wei-Wen, 2009; Yoo et al., 2012)
F2	Previous experience startup of the founding team (+)	The entrepreneurial experience of the founding team facilitates the launch of the company and prevents the appearance of errors in its management.	(Van Gelderen et al., 2005; Song et al., 2008; Baptista et al., 2007; Bou- Wen et al., 2006; Colombo et al., 2004; Dautzenberg & Reger, 2010; Davis & Zweig, 2005; Friar & Meyer, 2003; Gartner & Liao, 2012; Kim & Heshmati, 2010; Pugliese et al., 2016; Mueller et al., 2012; Bocken, 2015)
F3	Academic formation of the founding team (+)	It is the academic preparation in courses of management of the founding team, which has a positive impact on organizational growth.	(Van Gelderen et al., 2005; Baptista et al., 2007; Bou-Wen et al., 2006; Colombo et al., 2004; Dautzenberg & Reger, 2010; Davis & Zweig, 2005; Gartner & Liao, 2012; Hyder & Lussier, 2016; Pugliese et al., 2016; Rojas & Huergo, 2016; Thiranagama & Edirisinghe, 2015)
F4	Technological/ business capabilities of the founding team (+)	Technological and managerial skills, aptitudes and knowledge required to gain competitive advantage.	(Garcia-Muiña & Navas-López, 2007; Groenewegen & De Langen, 2012; Yoon-Jun, 2010; Li et al., 2010)
F5	Experience in R&D of the founding team (+)	In order to develop innovative products and/or services, the entrepreneurial team needs to have previous research experience.	(Baum & Silverman, 2004)

As seen in Table 1, the main factor is strengths of the founding teams in terms of previous industry and startup experience, management skills, academic and technologies/business capabilities, were discussed in at least 10 different research papers. Financial sponsorships from the government in the form of seed funding at the initial startup stage and venture

capital financing startups in the growth phase with considerable risk and potential are also the popular success factors (Santisteban & Mauricio, 2017).

Since the government and venture capitalists are the key players in the Entrepreneurial Ecosystem, it is another factor for startup success. Wordragen and Tischlinger (2019) support this statement by writing that the ecosystem serves as a community, granting entrepreneurs access to other entrepreneurs, investors, and resources. They also emphasize social capital as the most critical aspects because entrepreneurs can form high-quality social networks for finding new business opportunities, access, exchange and inquire vast amount of industry information. Starups founders are recommended to position themselves in proximity to potential business partners and prospects.

2.3 Major failures of startups

The startups in the idea phase have the highest risk and failure rates. It is hard to claim accuracy for the failure rate statistics because many failed startups are not detected. This is because these early-stage businesses do not raise capital from funds or other institutions that maintain a data set, but are financed by the founders, their families, and friends (Kotashev, 2024). Chorgoliani (2023) defined a “failed startup” as one that meets one of the following criteria:

1. A startup that halted operations due to its failure to attract adequate resources or secure the funding for further development.

2. A startup that has shown no significant progress in product development, revenue scaling, fundraising, or customer acquisition for a period of two years.

3. A startup that has undergone multiple significant pivots without reaching any milestones.

The number regularly cited when looking for how many startups fail is that 9 out of 10 startups fail, or 90% failure rate. These statistics originate from the Startup Genome, a world-leading policy advisory and research organization for public and private organizations (Kotashev, 2024). In January 2020, CB Insights, a global business analysis platform and database providing market intelligence, has listed the top 20 reasons startups fail based on post-

mortem data tracking and interviewing 101 failed companies. These failures reasons are ranked from the one with the highest cited percentage to the lowest cited percentage, as seen in Figure 4. It is important to note that most of this data considers startups that have managed to raise funds and have been in operation for at least a few years (CB Insights, 2020).

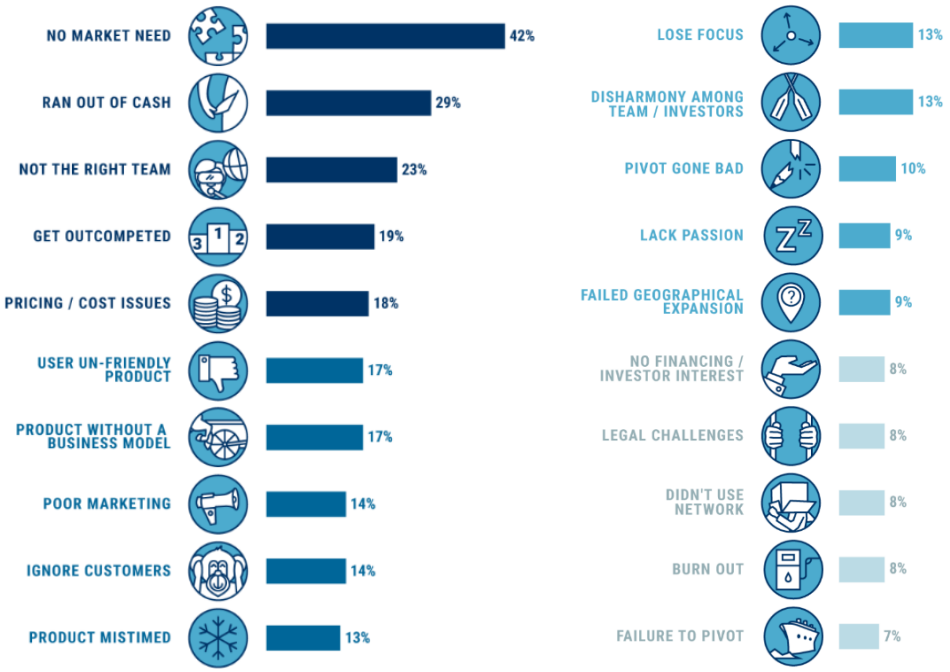

Figure 3. Top 20 reasons startups fail (CB Insights, 2020).

Out of the 20 reasons, this thesis chooses to focus on the highest cited percentages reason, which is “no market need”, cited as the failure reason for 42% of the company cases. “No market need” means that startups did not validate their product idea against market demand and developed a product without fully understanding the problem or their target audience. Without this understanding, their products did not resonate with customers, resulting in poor adoption, low sales, and failure (CB Insights, 2020). Co-founder of Y-combinator, Paul Graham supports this concept by indicating the unique reason startups fail is “not making something users want”. Steve Blank (2006) argues that bankrupt companies almost always fail because they lack customers, either from no market needs, the product does not serve customers or failing to find the right target group (Graham, 2006; Blank, 2006, p. 4).

Another reason for startup failures also stems from the capabilities of the founders, as they are the soul of any startup, contributing disproportionately to its success or demise. It is estimated that there are more than 450 million entrepreneurs around the world, with more joining this community every day (Pride, 2018). However, many of these new founders are ill prepared for the challenges ahead. A founder's journey requires not only technical skills, but also personal resilience and emotional readiness. Founding capacity, which encompasses aspects from physical fitness to mental and emotional preparedness, serves as the fuel that drives them forward. However, founders too often neglect to invest in capacity-building, focusing only on the technical aspects of their business. As a result, founders find themselves ill-equipped to navigate the inevitable hurdles that come their way.

The importance of founder dynamics cannot be overstated either. Research shows that startups led by co-founders with complementary skills tend to outperform those led by a single founder (Pride, 2018). However, the dynamics between co-founders can make or break a startup, with disharmony between founders often leading to its downfall. According to Noam Wasserman, author of the Founder's Dilemma, 65% of startups fail due to founder conflicts. This means that if founders want their new venture to beat the odds, they need to learn how to productively collaborate. As a result, the process of selecting co-founders and fostering effective collaboration becomes paramount in mitigating this risk.

2.4 Incubator

The two main external supporters for startups are accelerators and incubators (Securato et al., 2021). The National Business Incubation Association reports that 93 percent of all incubators are non-profit organizations focused on economic development, and about one third are affiliated with a university (Cohen & Hochberg, 2014).

The idea of incubators began just over 60 years ago in Batavia, New York when Joseph Mancuso, an emerging entrepreneur, saw an opportunity to help other like-minded individuals get their small businesses off the ground. With his family-owned factory, he began recruiting emerging enterprises to operate in the low-cost office space located in his massive factory. Today, there are more than 7,000 incubators around the world, according to the International Business Incubation Association (Hubspot, 2023). According to Peek (2021),

the U.S Chamber of Commerce defines startup incubators as a collaborative program - usually located physically in one main working space - created to support startups in the early-stage success (Peek, 2021). The goal of startup incubators is to provide specialized tools needed for startup growth and innovation. The resources and services they provide can vary, but often include access to office space, mentorship opportunities, business training, and community networking events (Hubspot, 2023).

InfoDev, a World Bank Group multi-donor program supporting entrepreneurs in developing economies, strengthens this definition by recognizing business incubation as a process to support the development and scaling of early-stage and growth-oriented companies. The process provides entrepreneurs with a favorable environment at the early stage of business development (World Bank Group & infoDev, n.d.). Firstly, the provision of office space within an incubator environment not only reduces the financial burden of traditional rents expenses, but also facilitates opportunities for synergistic networking between companies and potential partners. Secondly, the availability of seed funding enables startups to pursue ambitious goals and take critical steps in their expansion, thereby catalyzing their evolution into sustainable companies. Third, the mentorship programs offered by incubators provide invaluable guidance from experts, with trainings on business basics, presentation skills, higher education resource, empowering founders to cultivate essential leadership skills and navigate complex business challenges with confidence (Zheng, 2023). In addition, the allocation of equipment and software furnishes tech startups with essential resources, alleviating financial constraints and strengthening their innovation and growth capacity. This environment should contribute to reducing the cost of launching the enterprise, increase the confidence and ability of the entrepreneur and link the entrepreneur to the resources needed to create and scale a competitive enterprise.

2.5 Incubator support during different startup phases

Startup founders who are accepted into the business incubator stay until an agreed milestone has been reached, often measured in terms of sales revenue or profitability (World Bank Group & infoDev, n.d.). Although there are different approaches in literature review regarding startup development stages, this thesis will focus on the 6 phase-model used by Blockchain Founders Group, an early-stage venture capital funding organization. As seen

in Figure 4, incubators support early-stage startups during the first four phases: ideation, concepting, committing, and validating, in which the milestones are set for each of the phases.

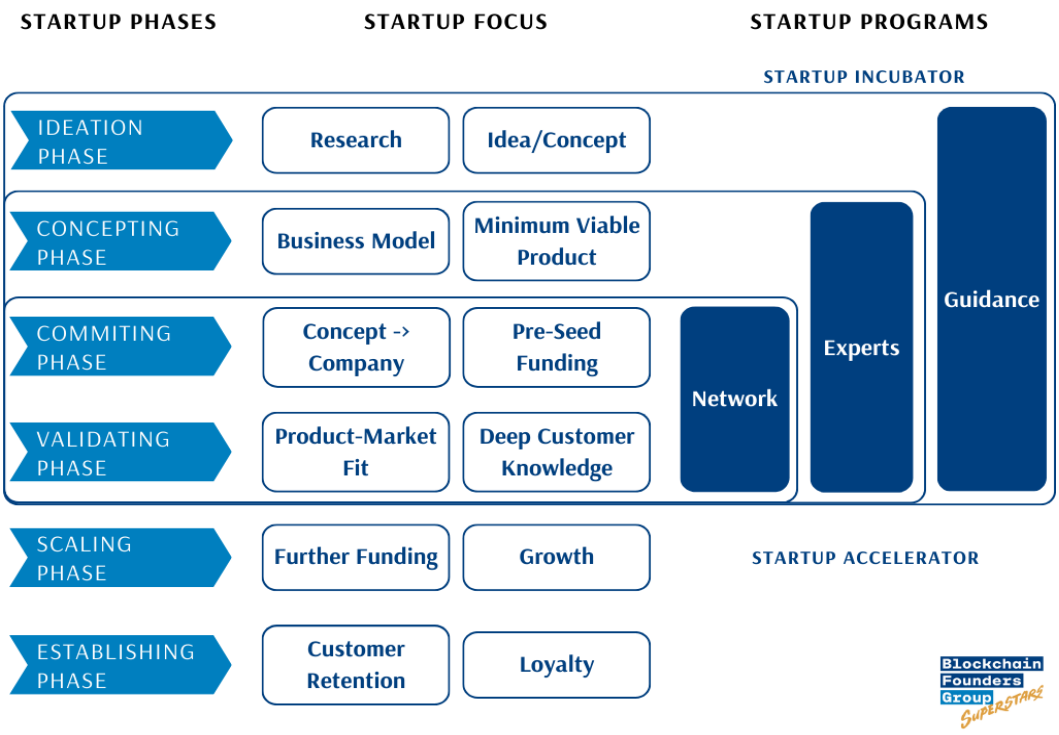

Figure 4. Startup phases and support from startup incubator programs (Blockchain Founders Group, 2023).

In the ideation phase, entrepreneurs focus on research and conceptualization to form innovative ideas. They also need to conduct idea validation, the process of gathering evidence and learnings around the business idea through testing, to make sure that the idea meets market needs (Idea Validation 101, 2024). During this stage, incubators support startups with consulting, provide valuable expertise and mentorship to refine business ideas. Subsequently, during the concepting phase, the founders move from the idea to the business implementation by building business models and developing minimum viable products (MVPs) to validate market viability (Minimum Viable Product, 2022). A MVP is a product with enough features to attract early adopter customers and validate a product idea early in the product development cycle. The MVP can help the team test an idea with real users before

committing to a large budget for the product's full development. Startups can receive user feedback as quickly as possible and learn what does and does not resonate with the target market to improve their product. In this phase, startup incubators use their pool of experts from different industries to provide specialized guidance to assist the formulation of viable business strategies and the product development processes. As companies progress in the committing phase, key tasks such as registration of companies and obtaining pre-seed financing become imperative. Startup incubators play a pivotal role in facilitating access to essential resources and networks, connecting founders with potential investors and partners to strengthen their financial base and expand their professional ecosystem. Finally, the validating phase underlines the significance of achieving product-market fit through deep customer understanding and iterative refinement.

2.6 Pre-incubator

The concept of a pre-incubator program is less well-known because limited research has been published on this topic. Kirby (2004) describes a pre-incubator as a facility for "embryonic" or early-stage businesses that still need to formulate their business plans, develop a prototype, establish a team, and lead the embryonic business to an investment or market-ready stage. In summary, supporting embryonic businesses during their planning stage and prior to company's registration is the key characteristic of a business-related pre-incubator (Deutschmann, 2007).

Pre-incubators have been developed to address the obstacles that academics often see regarding entrepreneurship, such as insufficient knowledge about economics, the unknown market potential of the developed products and services, high financial risks, lack of personal skills in entrepreneurship, and unawareness of the value of their intellectual property. A pre-incubation process is often part of the services offered by a science-based business incubator linked to a higher education institute. Through the pre-incubation process, potential entrepreneurs get the opportunities and skills needed to grow and develop their business idea, aiming for their business success, reducing the risk of market failure, and reaching a state where they will not need the pre-incubator's support. Pre-incubation includes several key features, including real or virtual workspaces and facilities such as ICT infrastructures and access to meeting rooms. In terms of advice, support, and training, potential

entrepreneurs can receive training in business skills, test whether there is a market for their ideas, connect with a network of specialists and experts, create prototypes, and form a business plan. Some pre-incubators also provide assistance in the technical aspects and formalities of setting up a new company. The pre-incubation process can also be seen as a way of filtering out non-viable business ideas (Efthimiadou et al., 2011).

2.7 Difference between an incubator and an accelerator

Incubators and accelerators differ in the emphasis each place on the venture stage they target, as seen in Table 2. Startup incubators gravitate towards nurturing very early-stage businesses, often those in their infancy, lacking a fully developed product or a comprehensive team. Conversely, accelerators focus their attention on companies that have a more advanced developmental trajectory, requiring a minimum viable product and a competent team as a prerequisite.

Table 2. Difference between incubators and accelerators (Cohen & Hochberg, 2014).

	Accelerators	**Incubators**
Duration	3 months	1-5 yrs
Cohorts	Yes	No
Business Model	Investment; non-profit	Rent; non-profit
Selection frequency	Competitive, cyclical	Non-competitive
Venture stage	Early	Early, or late
Education offered	Seminars	Ad hoc, hr/legal
Venture location	Usually on-site	On-site
Mentorship	Intensive, by self and others	Minimal, tactical

The financial dimension leads to another remarkable distinction. Incubators, while offering a range of benefits, do not systematically participate in direct financial investments in the companies they support. In contrast, accelerators count on seed funding as a cornerstone of their operational framework, indicating a more direct and substantial financial involvement in the startup.

Time frame considerations further contribute to the distinction between these organizations. Incubators are characterized by relatively flexible and longer timelines of 1 to 5 years, concluding their support once a participating company crafts a compelling product pitch for potential investors. The accelerators, according to Cohen and Hochberg (2014), on the other hand, operate within a significantly shorter time frame of 3 months, with their core objective centered around catalyzing rapid growth and achieving a turnaround in their invested capital (Hubspot, n.d).

2.8 Support for international students in education and entrepreneurship.

With the aim of significantly improving Finland's position in the global competition for international talent and students, the Finnish government has created an education and work-based migration roadmap. The roadmap includes measures to make Finland an attractive country for work and study, where the immigration process is simple and seamless. This solution is in respond to the labor shortage in the leading high-tech growth sectors requires that experts be sought beyond Finnish borders. In addition to individuals, representatives of ministries, labor market organizations, businesses, regional entities as well as higher education institutions have participated in the preparation of the road map (Finnish Government, 2021). With the number of new foreign students expected to triple to 15,000 students a year, the Government’s objective is to achieve 75 per cent remaining in Finland to work after graduation by the year 2030.

In terms of education and training, the plan, extended until 2035, includes work-oriented quality education programs and mentoring offered by higher education institutions to help foreign researchers and students settle in Finland. A recent change in the law facilitates the process of making residence permits for international students and allows them to obtain a permanent residence more quickly. Most Finnish universities already offer professional development programs and services for their foreign students. One example is the Aalto University's International Talent Program which connects students with potential well-known Finnish employers, such as Fiskars, Kone, Nokia and Wärtsilä, in various mentoring sessions (Haaramo, 2022).

In Finland, there are 34 higher education institutions, where a student-to-student mentality strongly influences students' culture. This is a belief that students are the main organizers of most student activities. The first student-driven entrepreneurship society is the Aalto Entrepreneurship Society, founded in 2009 by a group of students after their trip to San Francisco and Silicon Valley. An Entrepreneurship Society (ES) is a student-driven non-profit organization that promotes entrepreneurship in universities. All events and programs are related to two topics, which are inspiration and building startups. As of 2023, there are 18 active ES in almost every university or university of applied sciences in Finland. Many of these organizations are free for all students, volunteer-based and non-profit. ESs are run by students who are responsible for organizing startup activities at their universities. These societies have played a significant role in the growth of the Finnish startup ecosystem. Today, many of Finland's most successful startups, such as Wolt, Veri, and Smartly.io, have deep connections within ES (Startup Foundation, 2022).

Support for international students also comes from Finnish startup ecosystem as it is a major employer for international talents, and it also offers major support to those who want to become entrepreneurs (Haaramo, 2022). An important center for this is Maria 01, a Helsinki-based leading startup campus in the Nordics that provides a thriving environment for early-stage startups, renowned investors and VCs, large enterprises, and other ecosystems. There is currently international talent from 65 different nationalities and organizations within the Maria 01 community that offer different training programs and matchmaking opportunities. Their goals are unanimous, to connect international talent with local entities and help them to find jobs or start their own businesses (Maria 01, 2024).

3 DATA COLLECTION AND ANALYSIS

A total of 9 interviewees, including 5 SeAMK's international students, 1 incubator founder, 1 accelerator organizer and 2 SeiES's board members, were contacted through LinkedIn and email. All the interviews were conducted online via Microsoft Teams and the data collected is in the form of video transcript, written and secondary materials. The participants were asked for permission and agreed to be recorded for the interviews, the content was later transcribed using the Microsoft Teams feature. Some participants also provided written material on the topic. All the recordings were removed automatically after two weeks for data security purposes and any direct quote taken from the transcript is to be sent to the interviewees for approval before included in the thesis. The interviews are semi-structured because although the questions follow a predetermined thematic framework, they are open ended and allow flexibility in answers (George, 2022).

3.1 Challenges and needs of higher education students in Seinäjoki.

Out of the 5 students being interviewed, 3 of them have registered their companies in Finland, 1 is doing freelancing tasks related to his business idea and 2 are interested in having their own startups in the future. 3 students are International Business students while the other 2 students are from the Engineering Degree, all are in either 2nd or 3rd year of their studies. It is important to take notes that out of 5 students, 2 of them can speak Finnish and have been living in Finland for a long time. The transcripts are analyzed using ChatGPT, an artificial intelligence (AI) chatbot that uses natural language processing to respond to inquiries and compose various written content. ("What Is ChatGPT? Everything You Need to Know - TechTarget"). The needs and challenges of these 5 students are presented in the table in Table 3.

Table 3. Needs and Challenges of international students in Seinäjoki.

NEEDS	CHALLENGES
Access to resources and communication in English	Limited availability of information and resources in English

_ Information about available funding options and funding processes _ Finnish business regulations and procedures	_Finding comprehensive information sources.
Guidance on navigating Finnish business landscape	Challenges in understanding Finnish business culture and practices
Financial support	Limited access to funding and financial resources for international students
Accessible mentorship	Limited access to experienced mentors and advisors
Networking opportunities	Limited networking opportunities and difficulty in connecting with local Finnish for networking

In summary, international students who want to start a business in Seinäjoki face several challenges and have specific needs that can be grouped into 3 key themes, which are (a) information resources in English, (b) support and guidance and (c) networking (OpenAI, 2023). Aspiring student entrepreneurs said that they need information resources to navigate funding options and understand Finnish business regulations. All students agree that they need business development guidance and accessible mentorship, yet obtaining expert advice and support is often limited due to language barriers. Language barrier is highlighted throughout the interviews as the contributing factor to students' challenges. The non-Finnish-speaking students said that they find most necessary information in Finnish and need to do translation. In terms of networking, the students who do not speak Finnish find it even more challenging to communicate and connect with the locals. Thus, language support is crucial because international students often encounter a language barrier and struggle to find the information and support in English.

Regarding the question about whether students would prefer to have a centralized organization (pre-incubator) providing all the necessary information, the majority of 4 students answered yes, stating convenience as the reason. 1 student said she would prefer having different organizations as she felt that information from only one centralized organization would be general and not in-depth. Overall, understanding the needs and challenges of international students in Seinäjoki is vital to develop an effective pre-incubator program that can address the issues and caters to the needs.

3.2 Insights from Finnish Incubator and Accelerator programs

The founder of Hatch Incubator is Suvi Lehtonen, and the head organizer of Forward Accelerator is Hannes Täyrönen. The Hatch Incubator Program was a free 8-week startup incubator organized by Laurea Entrepreneurship Society (Laurea ES), based in Helsinki and for early-stage businesses and university students in the capital region (Hatch incubator program, n.d). The last time Hatch Incubator program was organized was in the fall of 2022. Forward Summer Accelerator, produced by LUT Entrepreneurship Society, is a 7-week program for first-time founders and early-stage ideas (LUTES, 2024). As mentioned in chapter 1.5, the purposes of the interviews are to gain insights regarding success factors, challenges and benchmark the curriculum of the two programs. To analyze the data collected from the two interviews, coding, the process of labelling and organizing qualitative data to identify different themes and the relationships between them, is used (Medelyan, 2024). When coding the interview transcripts, the data coding software Quirkos was chosen because it helps sort and manage text-based data.

The interview transcripts are uploaded to the software, each section of text is then assigned with a "code" to represent the segment as being about a particular topic. These codes each belong to an important and recurring theme in the responses, and are categorized into those themes (Quirkos, n.d.). The analysis of these codes and themes from both interviews helps to identify connections, links, and emerging trends regarding how the two organizations develop and operate their programs. As seen in Figure 5, the transcripts data from both interviews are coded and organized into fourteen categories namely: 7-week program, 8-week program, team, network, stakeholders, participants selection criteria, contract with condition,

assignment, curriculum, measuring success, sustaining, success factors, organizer challenges and participants challenges.

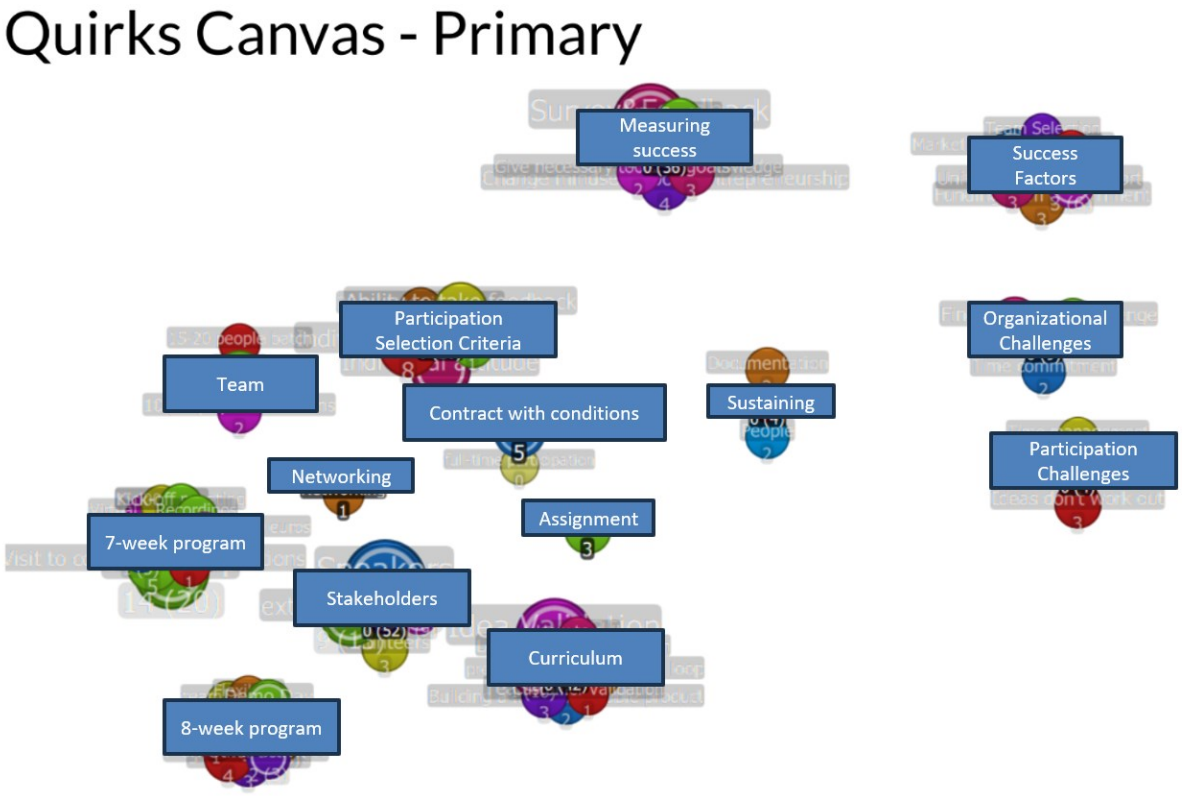

Figure 5. Different themes of Hatch Incubator and Forward Accelerator programs.

With this information from Figure 5, the Hatch Incubator and Forward Accelerator programs are then compared to show their similarities and differences, with the result presented in Figure 6 below.

The two programs both offer professional mentoring, lectures in different fields with speakers, workshops, and study trips and networking opportunities. The purple section shows similarities between the two programs, with curriculum topics represented by green bubbles, and other activities of the programs with orange bubbles and stakeholders are with pink bubbles. Although the two programs are different in definition, they do cover common training topics. Similar training topics are idea validation, customer validation, building a minimum viable product, marketing, sales, and pitching. Both programs include at least one study trip, either

local or international, and end with a Demo Day, where all the teams present their business to judges and audiences. The programs are of collaborative nature with support and participation from different stakeholders, such as volunteers, speakers, and external mentors. Hannes mentioned in the interview that the Forward Accelerator program chooses speakers and mentors who are entrepreneurs, startup founders or industry experts with real life experiences and have the general business knowledge to support all the team.

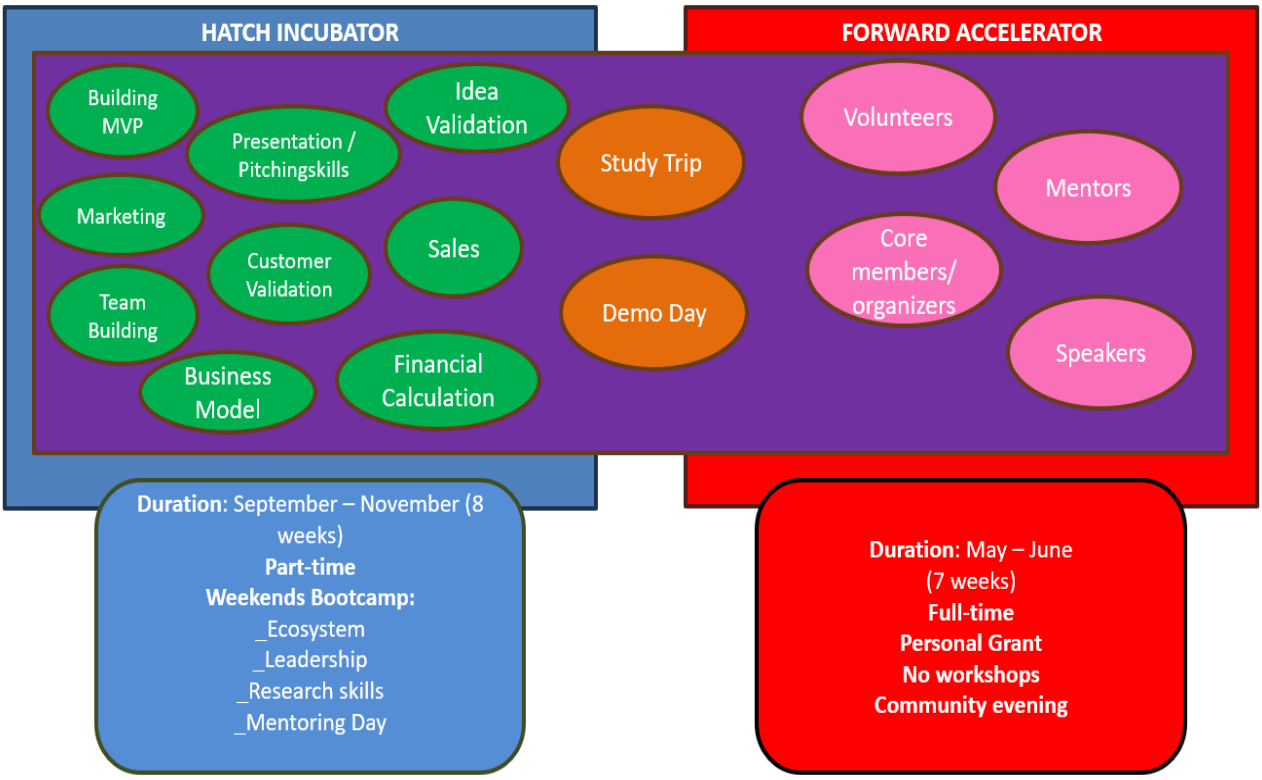

Figure 6. Comparisons of Hatch Incubator and Forward Accelerator.

The key difference between the two programs is that the Hatch Incubator program happens in the autumn semester during the school year, so workshops are organized weekly after school with a weekend bootcamp at the beginning of the program. Forward Accelerator, on the other hand, is a longer and full-time program during the summer with a schedule from 8am to 4pm during the weekdays. For Hatch Incubator, the bootcamp weekend functions as a crash course to entrepreneurship through different workshops and exercises. The weekend provides insight on topics such as the startup ecosystem, leadership, Business Model Canvas, idea validation, research skills and pitching. The purpose of the bootcamp is also for the participant to get acquainted with other Hatch attendees and the organizers. This helps to

foster a sense of community and build connections among the participants and the organizers. For Hatch Incubator, 4-hour workshops are organized once per week, from 5 pm – 9pm, and are mostly hosted in the same location with at least one speaker invited to speak at the workshop. The last workshop is called Mentoring Day, where teams are matched with a few mentors based on the mentor's profession and teams' business ideas needs. The teams are expected to prepare questions according to the mentor's strengths and areas of knowledge so that teams can have 1on1 mentoring. This information is obtained from the transcripts and the program infographic, which is confidential information and only shared by Suvi for references.

Forward Accelerator, while it does not have weekend bootcamp, has community evenings every week with activities like dinners, going to the sauna to foster closer relationships and build a sense of community among the participants and the organizers. H. Täyrönen (personal communication, March 14, 2024) also provided a directive schedule for the program with the theme of each week during the interview. This information is presented in Figure 7.

Figure 7. Forward Accelerator schedule.

The training topics for Forward Accelerator program are included in five of the weeks, although there are general themes in week 23 and 24, such as “starting a business and running it” and “scaling and growing the business. This directive schedules show the orders of the themes and which topics should be covered first as the teams go through their business ideation and development phrases. Compared with the startup phases mentioned in Chapter 2.5, this order of themes aligns closely with the milestones listed in the ideation, concepting, validation and scaling phases. There are no topics related to the committing phase because Forward Accelerator does not require the participants to register their companies. Hannes said that there will be 2 to 4 workshops per week and plenty of time for the teams to work on their ideas together.

3.3 Success factors and potential challenges

The analysis of the interview transcripts aims to find the common elements contributing to the success of the two programs, and the obstacles that both the organizer and the participants might face. Understanding these factors helps to enhance the development of the pre-incubator program for SeiES to address the potential challenges and provide optimal support, ensuring the success of the program. There are three common success factors that both interviewees mentioned, which are financial support, team selection and marketing, as seen in Figure 8.

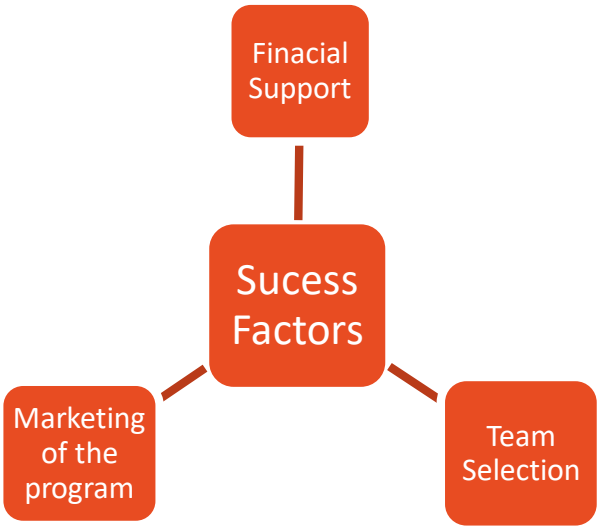

Figure 8. Common success factors of the two programs.

From Figure 8, marketing of the program is an important success factor, with Hannes said that their marketing duration was about 5 weeks, starting from Mid-January to raise awareness and convince students to apply, and Suvi suggested to have someone in charge of

marketing. Different online communication channels and face-to-face marketing on the campus were used.is A good marketing strategy helps to attract sufficient good applications for the team selection process where the organizers can choose the most suitable ones for the program. Both interviewees agreed that the number one priority for selecting the participants are individual attitudes and motivations, following by the business idea. Suvi from Hatch Incubator said that:

> Because of that being our number one priority, we actually looked at the individual more than we looked at their ideas, because ideas can easily be changed.

Suvi also talked about one's ability to take feedback while Hannes stated eagerness and excitement about the business ideas as the characteristics they looked for in potential participants. The feasibility and practicality of the business ideas is also considered in the selecting process. Financial support in the form of funding from the government, sponsorships and through fund-raising is the success factor emphasized by both interviewees. Financial support is necessary to organize the programs with their unique features. In the case of Forward Accelerator, there are about 20 participants, and each participant is given a personal grant of 1500 euros, and for Hatch Incubator, there was an weekend bootcamp where participants stayed overnight. In addition to the common success factors, Suvi also said that the support from the Laurea UAS by listing Hatch Incubator in their entrepreneurship curriculum helped the pre-incubator to be well-known and attracted more applicants.

Organizer challenges discussed during the interview include time commitment and marketing. In terms of time commitment, since the two programs are student-run, the organizers had to find time and balance between studies and work. Hannes from Forward Accelerator said the marketing phase is always challenging because it is not easy to find motivated teams. Therefore, Forward Accelerator focuses a lot on marketing and started this process early in January for their June program. Regarding the participant challenges, both Suvi and Hannes said that there might be time management issues. The solution both organizations have adopted is to request the participants to sign a contract with conditions on attendance and assignment the participants need to complete. Another problem is that the teams' ideas might not work out, which leads to a delay in progress. For this problem, the interviewees

suggested the solutions could be to advise the team to change their idea or ask the mentors to help the team.

3.4 SeiES's operational capabilities

For SeiES interview with the Chairperson and Vice-Chairperson of the year 2024, narrative analysis is used to understand the SeiES's operational capabilities, financial resources available and the expectations for the pre-incubator program. The transcript data is also analyzed using ChatGPT. Data cleaning is first performed to remove duplicated incorrect or incomplete data, followed importing data and giving a prompt to ChatGPT to do a narrative analysis on the given content. The result is presented in table 4 below.

Table 4. SeiES's structure and operation capabilities.

Theme	Explanation
Organizational Structure	The organization includes a board which makes decisions, volunteers, and members. There are five roles on the board, which are the Chairperson, Vice Chairperson, Secretary, Event Organizer, and Marketing Manager. There are about 15 to 20 active members per semester. The Chairperson is highlighted as the leader providing overall direction for effective performance. It is important to take note that the Board changes every year.
Decision-making process	Decisions are made collaboratively. The Chairperson initiates decisions, but more than half of the board needs to agree with the decision for implementation. This is to ensures a democratic approach to decision-making.
Time Commitment	Although no specific amount of time spent is provided, daily discussions between the Chairperson and Vice-chairperson for event planning are mentioned, indicating a significant amount of time investment.

Financial planning	The exact amount of the annual and monthly budget is not disclosed. Financial planning for the calendar year starts in January, with monthly budgets allocated for operations, activities and organizing events. There is flexibility in the budget based on the number of events planned each month.
Communication Channels	Social media platform Instagram, messaging app WhatsApp, posters, and face-to-face meetings. These channels are also used for Marketing purposes.
Collaboration with partners and stakeholders.	SeiES collaborates and have partnerships with various stakeholders including SeAMK, local community organizations like Into Seinäjoki and Etelä-Pohjanmaan Work Integration for Immigrants Service (WIISE). Collaborations vary from advisory roles to event support.
Support for student entrepreneurship	Although SeiES is not supporting any student entrepreneurs now, they organize events for higher education students, aiming to spread information about entrepreneurship. Collaborations with SeAMK also directly support entrepreneurship initiatives for students.
Event planning and event planning	SeiES aims to have one event each month. Collaboration is done with partners for event planning, with a focus on providing informative and engaging activities for members.

In the interview, SeiES's Board Members confirmed that they have the financial resources and are willing to run the new pre-incubator program. Other factors such as a stable number of active members, support from different stakeholders and Board Members's time dedication also strengthen SeiES's organizational capabilities. It can be concluded from the analysis that SeiES is capable and has the resources to organize the pre-incubator program.

3.5 Key Performance Indicators (KPIs) and ways to measure success.

Both Hatch Incubator and Forward Accelerator choose Key Performance Indicators (KPIs) to evaluate the success of their programs. For Hatch Incubator, KPIs are centered around participant feedback, skill development, and confidence levels. At the beginning of the program, participants take starting surveys to find out the measurements of participants' confidence levels and skill sets. Weekly surveys throughout the program gather feedback from both the participants and the mentors on mentorship experiences, workshop effectiveness, and overall program satisfaction. Personal surveys are used to assess individual growth and development over time and are used at the end of the program. When talking about how to measure the success of the programs from the mentor's side, Suvi recommended forming a personal relationship with the mentors and contacting them through calls to show appreciation and ask for their feedback.

It is important to note that June 2024 is the first year that Forward Accelerator organizes their program, so the KPIs and ways to measure the program's success are only estimated. Forward Accelerator emphasizes goal setting and progress monitoring as key components of their success evaluation strategy. Hannes said that clear goals are set up for participants each week, and their progress is tracked throughout the program. There are also goals that Forward Accelerator agrees with the organizations that have funded the program and will present a report on teams' achievement to their sponsors at the end of the program. What the specifics goals are were not discussed during the interviews as the organizer is still working on the program. The program collects feedback from participants and stakeholders, evaluating program satisfaction and identifying opportunities for enhancement.

4 A guide for SeiES to design an Pre-incubator program.

To address the needs and challenges of aspiring student entrepreneurs, a “How to organize the pre-incubator program” guide is created for SeiES to plan and run the program. The guide is developed based on the literature review, a clear understanding of students' needs and challenges, an assessment of SeiES' operational capabilities, and a comparative analysis of other established programs. Due to SeiES’s confidentiality on financial matters, the Board members did not disclose SeiES’s budget or financial resources available but said that they have the budget for the pre-incubator program and are willing to organize it. Therefore, this thesis will provide a guide that includes a planning template and organizing timelines. While the template includes topics for each week and suggested location area, SeiES need to make their own decisions on the budget, specific locations, who the speakers and mentors are, and marketing. SeiES can use the guiding and change certain elements of the program based on their budget or organization capabilities. The pre-incubator program for SeiES, while focusing on supporting international students, is open for all students of SeAMK to take part. This is because SeiES as an organization aims to support all students who have an interest in entrepreneurship.

4.1 Pre-incubator program structure

It is important to note that the pre-incubator program for SeiES focuses on business idea development and the first two phases of early-stage startup, ideation and concepting phase. The curriculum does not cover company founding steps or paperwork as there is already information and professional services available in Seinäjoki for registering a company. However, since some of the essential information is not available in English, there should be workshops in English about information finding and introduction to entrepreneurship support.

Based on the interviews with SeiES and the characteristics of a student-run program with concerns about time constraint, manpower, the pre-incubator program is set follow the eight-week and part-time structure, like the Hatch Incubator program. The duration of the pre-incubator program for SeiES will the in the autumn semester, between October and November. This duration is sufficient for business ideas to develop, not too long that the students

face time commitment issues and suitable with the schedule of SeiES's Board Members. The theme and topics for each week take reference from Forward Accelerator's schedule and Hatch Incubator Program because their curriculum aligns with startup phases' milestones, as mentioned in Chapter 2.5. There will be special workshops or activities in the program that cater to the international students 'needs and challenges in Seinäjoki. The pre-incubator programs for SeiES will include a Kick-Off Breakfast, one workshop per week for 7 weeks, a study trip to Tampere, a 1-to-1 mentoring session and a Demo Day in the last week. Table 5 illustrates how the pre-incubator program solves the needs and challenges uncovered in the interview data collection.

Table 5. How the pre-incubator program solves the needs and challenges of international students

Challenges for international students	**Characteristics of the pre-incubator program to address the challenges**
Lack of information resources in English	The pre-incubator program is in English. There is a workshop with the city business development company where participants can learn information about starting a business in Seinäjoki
Limited support and guidance	Workshops are organized every week and cover important topics ranging from ideation to scaling and growth (Table 6). The topics are in order and align with startup development through different phases, mentioned in Chapter 2.5. At the workshop, participants can learn from speakers who are experts in their field. There are also mentors that can give participants advice on developing their business ideas.
Limited networking opportunities	The participants will get the chance to expand their network with the speakers and mentors. They will also have a chance to network with members from other entrepreneurship society or startup companies during their study trip to Tampere.

The pre-incubator program helps to address the needs and challenges of the students regarding language barrier, networking opportunities and guidance. By participating in the pre-incubator program, the students will gain the knowledge and skillsets for creating a business, receive mentoring and guidance through workshops, and have the chance to expand their network.

4.2 Pre-incubator program schedule and how to use the template and how to use the template.

The outcome of the thesis is a template with schedule and themes of each week with empty space for SeiES to make the decision when implementing the program. Certain features of the program, for example duration of workshop, the speakers for Week 5 workshop and the destination for the study trip are pre-decided by the author of the thesis, considering the needs of the students being interviewed.

Regarding how to choose the speakers and mentors, SeiES can refer to the workshop's topics and contact relevant mentors or speakers that have experience and can participate in the workshops It is recommended that the pre-incubator programs invite six speakers, who are also the mentors, for the workshops. The speakers can be university lecturers, entrepreneurs, founders, or industry experts, with each of them covering one workshops topic so that the students can get different perspectives and have a chance to network with more experts. SeiES find suitable speakers and mentors from their network that includes alumni, partners, other Entrepreneurship Societies or through LinkedIn.

Regarding the duration of the workshops, it will be a 4-hour session with 2 hours for the speakers and the other 2 hours dedicated to teamwork's time. This is so that the participants can apply what they have learned from the workshop and work on the ideas together in a physical environment. The time is from 5pm – 9pm so that the students can attend the workshops since they are after school hours. The location of the workshop should be on the SeAMK campus for convenience and accessible working facilities. SeiES can decide the fixed date which they will have the workshop. The template for the program is presented in Table 6.

Table 6. Template for the pre-incubator program.

	Schedule	Speaker	Location
Week 1 **Date: Monday** **9am - 11am**	**Kick-off Breakfast:** Program information and schedule. **Networking**		SeAMK campus:
Week 1 **Date:** **5pm - 9pm**	**Workshop on Idea Validation**: Validating ideas through market research to make sure that the idea meets market needs. **Teamwork time**		
Week 2 **Date:** **5pm - 9pm**	**Workshop on Customer validation and minimum viable product (MVP):** Understanding target customers and learning to build an MVP. **Teamwork time**		SeAMK campus:
Week 3 **Date:** **5pm - 9pm**	**Workshop on Marketing & Branding:** Learn about effective marketing and branding strategies. **Teamwork time**		SeAMK campus:
Week 4 **Date:** **5pm - 9pm**	**Workshop on pitching and sale:** Learning how to pitch an idea and mastering sales techniques. **Teamwork time**		SeAMK campus:

Week 5 **Date:** **5pm - 9pm**	**Workshop on Starting a Business in Seinäjoki:** Provides insights into legal, financial, and operational aspects of starting a business in the city. **Teamwork time**	Into Seinäjoki	SeAMK campus:
Week 6 **Date:** **9am - 9pm**	**Study trip to Tampere:** Visit to Platform 6 and TRES **Workshop on Scaling and Growth:** Understanding Growth Hacking and Explore strategies for expansion		Tampere. Platform 6
Week 7 **Date:** **5pm - 9pm**	**Workshop: 1on1 Mentoring Day with all mentors**: Participants can ask questions and get advice		SeAMK campus:
Week 8 **Date:** **3pm - 9pm**	**Demo Day: Pitching Competition:** Pitching for judges and a live audience		SeAMK campus:

As seen in the template in Table 6, the purpose of the Kick-Off Breakfast is so that the participants can receive all the information regarding the schedule, the mentors, the workshops and get to know each other. From Week 1 to week 4, students learn how to validate their business ideas, what are the marketing strategies and ways to pitch their businesses. For week 5, SeiES should contact Into Seinäjoki, the city 'development company that helps entrepreneurs to set up their companies or companies in Seinäjoki and ask them to be the main speakers for the workshops about starting a business. This is because the students

interviewed have stated that they need guidance and more information about setting up a business in the city. For week 6, the study trip is in Tampere and should be in collaboration with Tampere Entrepreneurship Society (TRES) to visit Platform 6, a 5-storey startup house operated by Tampere Startup Hub and learn more about the startup ecosystem in Tampere. The last workshop on week 7 is the 1on1 Mentoring workshop, the teams and individuals are matched with a few mentors for the 1on1 mentoring, based on the what the teams needs and the mentor's expertise. This workshop allows teams to receive personal feedback on their business ideas and build up their network. For the Demo Day on week 8, all the teams will pitch their ideas to judges and live audience. The best pitches and team with the best progresses during the program will be rewarded. The Demo Day is an open event with free registration so that participants can invite friends and family and the participants have a chance to showcase their business ideas to the larger audience.

4.3 Timeline for implementation and measuring the success of the pre-incubator program.

In Figure 11 is the suggested timeline for the the planning, implementation and feedback collection of the pre-incubator proram. The duration for each of the process is chosen based on the advice from organisers of other program and in order to give SeiES suffient time to complete the tasks. There are five different phases, which are are: Marketing, Team Selection, Finding Partners and Locations, Pre-incubator Program exceution and Feedback collection from different stakeholders.

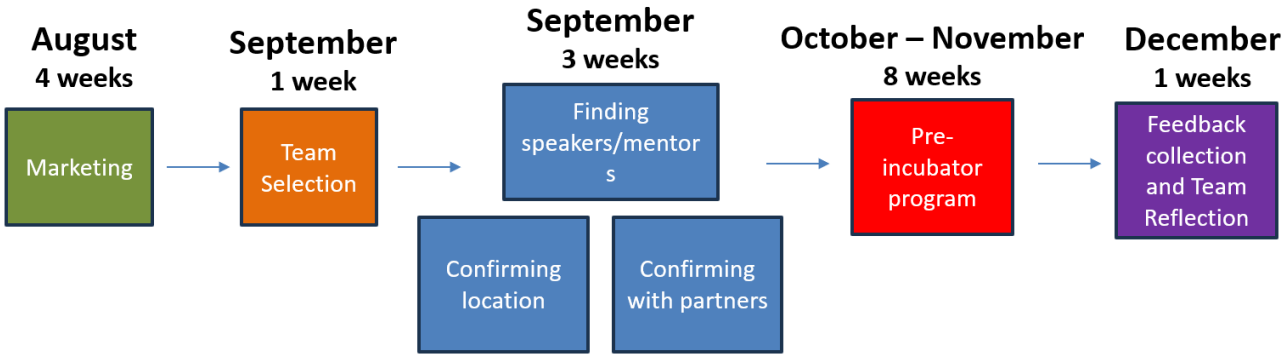

Figure 9. Timeline for the pre-incubator program.

Based on the suggestions from Hannes of Forward Accelerator, the marketing of the pre-incubator program for SeiES should last for 4 weeks to raise awareness about the program and attract a sizable number of applicants. Different marketing channels, both online and offline channels, should be used to market the program and it is advisable that SeiES works closely with the university to promote the program. This is because collaboration with SeAMK enables the marketing to reach more students and increase the credibility of the pre-incubator program. From a large number of applications, SeiES can choose the most suitable individuals and teams. Since this is the first year that the program is organized, the participants size should be purposely kept small, about 7 to 8 people that can be divided into 4 teams of 1 to 2 members. This allows the pilot of the program to evaluate its feasibility and gain qualitied feedback from the participants for improvement.

Selection of participants should last for 1 week after all the applications have been submitted and in the form of an interview. Selection criteria should prioritize individual attitudes and motivations, following the feasibility of business ideas, like the two programs studied above. This is because ideas can easily be changed as the team progresses, but the good attitudes and motivations will help the team to complete the program. Eagerness and excitement about business ideas are some of the characteristics to look for in potential participants. The feasibility and practicality of the business ideas should also be considered in the selection

process. After confirming the participants, the next step is to find the speakers that would also be the mentors for the program, contact different partners like SeaMK, Into Seinäjoki, TRES, Platform 6's operators and choose the venue to organize the program. This process this done after confirming the number of participants because in case SeiES could not attract enough participants for the programs, the numbers of speakers or the activities can be adjusted, reducing potential cost. After organizing the 8-week pre- incubator program, SeiES should spend the next week obtaining feedback from both the participants and the speakers and conduct internal team reflections.

Key Performance Indicators (KPIs) for the pre-incubator program for SeiES centers around participant feedback on satisfaction levels and confidence levels on their skill and knowledge development. The success of the program is measured by the participants' high level of satisfaction levels of participants and their confidence level in essential entrepreneurial skills and knowledge on a scale. Surveys are used as a means of measurement, allowing participants to rate their satisfaction with various program aspects using predefined scales. Additionally, confidence levels in specific entrepreneurial topics are assessed using similar rating scales, providing valuable insights into the program's effectiveness in equipping participants with the necessary knowledge and confidence to pursue their entrepreneurial endeavors.

5 Conclusions

In conclusion, this thesis has successfully achieved its objectives of addressing the needs and challenges of international students who want to start a business in Seinäjoki with the development of a pre-incubator program guide. This guide is designed so that SeiES can implement the program and support students' ventures. A review and comparative analysis of other successful entrepreneurship programs at the national level provided useful information on program structure and collaborative practices. The thesis then presents a guide to the organization of the pre-incubator program, with a program template and timeline recommendations. By defining metrics to measure the effectiveness of the program, this thesis offers a means to evaluate its effect and ensure continuous improvement.

The findings of the thesis contribute knowledge to the field of entrepreneurship education and offer practical recommendations for supporting international students. However, the actual impact of this program can only be assessed over time, highlighting the need for continuous evaluation and improvement. With support for student entrepreneurship and collaborative efforts from various stakeholders, Seinäjoki can position itself as a thriving hub for innovation and economic growth, and a promising destination for international students.

BIBLIOGRAPHY

Baldridge, R. (2022, October 16). *What is a startup? The Ultimate guide*. Forbes Advisor. https://www.forbes.com/advisor/business/what-is-a-startup/

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17(1)*, 99–120. https://doi.org/10.1177/014920639101700108

Bernard, H.R. (2002*). Research methods in anthropology: Qualitative and quantitative approaches* (3rd ed.). Alta Mira Press.

Blank, S. (2006). *The Four Steps to the Epiphany; Successful Strategies for Products that Win* (2nd ed.). Lulu.com. https://web.stanford.edu/group/e145/cgi-bin/winter/drupal/upload/handouts/Four_Steps.pdf

Blank, S., & Dorf, B. (2012). *The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company*. https://openlibrary.org/books/OL29686330M/Startup_Owner's_Manual

Blockchain Founders Group. (2023, October 1). *What is a Startup Incubator? Everything You Need to Know*. Blockchain Founders Group. https://blockchain-founders.io/educational-resources-for-entrepreneurs/what-is-a-startup-incubator-everything-you-need-to-know

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3(2)*, 77–101.

CB Insights. (2020). *The Top 20 Reasons Startups Fail. https://www.cbinsights.com/research/why-startups-fail-2/*.

Chorgoliani, G. (2023). *Evaluation of startups in early stages of development and main reasons for their failure* [Bachelor thesis, Savonia University of Applied Sciences]. Theseus. https://www.theseus.fi/bitstream/handle/10024/815783/Chorgoliani_Georgii.pdf?sequence=2

Cohen, S., & Hochberg, Y. V. (2014). *Accelerating Startups: The Seed Accelerator phenomenon.* Social Science Research Network. https://doi.org/10.2139/ssrn.2418000

Creswell, J. W., & Clark, V. L. P. (2007). Designing and conducting mixed methods research. *Australian and New Zealand Journal of Public Health, 31(4)*, 388. https://doi.org/10.1111/j.1753-6405.2007.00096.x

Denzin, N. K., & Lincoln, Y. S. (2005). *The SAGE Handbook of Qualitative Research.* SAGE. https://books.google.fi/books?id=X85J8ipMpZEC

Deutschmann, M. (2007*). What difference a 'pre' makes: University business pre-incubators in Germany.* Leuphana University of Lüneburg, Department of Entrepreneurship & Start-up Management. https://www.econstor.eu/bitream/10419/41948/1/534378161.pdf

Efthimiadou, I., Prokopiou, T., & Kokorotsikos, P. (2011). *University pre-incubators as a tool for boosting innovative entrepreneurship in a user-centric innovation system*. International Association of Science Parks. https://www.pmf.sc.gov.br/arquivos/arquivos/pdf/08_07_2011_17.07.00.039ed840ff1279c6bfd18e17e23bae19.pdf

Eisenmann, T., Ries, E., & Dillard, S. (2012). Hypothesis-Driven Entrepreneurship: The Lean Startup. *Harvard Business School Background Note 812-095, December 2011*. https://www.hbs.edu/faculty/Pages/item.aspx?num=41302

Harvard Business School FasterCapital. (n.d.). *Failing to build a repeatable and scalable business model.* https://fastercapital.com/topics/failing-to-build-a-repeatable-and-scalable-business-model.html

Finnish Government. (2021, September 9). Government roadmap compiles measures to increase education-based and work-based immigration. https://valtioneuvosto.fi/en/-/1410877/government-roadmap-compiles-measures-to-increase-education-based-and-work-based-immigration

George, T. (2023, June 22). *Semi-Structured Interview | Definition, Guide & Examples.* Scribbr. https://www.scribbr.com/methodology/semi-structured-interview/

Graham, P. (2006, October). *The 18 mistakes that kill startups*. https://paulgraham.com/startupmistakes.html#:~:text=In%20a%20sense%20there's%20just,do%20or%20don't%20do.

Haaramo, E. (2022, August 23). *Finland works to retain its international talent*. https://www.goodnewsfinland.com/en/articles/feature/2022/finland-works-to-retain-its-international-talent/

Hatch incubator program. (n.d.). LinkedIn. https://www.linkedin.com/company/hatchincubator/about/

Hubspot. (2023, January 9). *What is an incubator? A complete guide*. HubSpot for startups. https://www.hubspot.com/startups/resources/what-is-an-incubator

Idea Validation 101. (2024). Shnoco. https://www.shno.co/blog/idea-validation#blogtoc-0

Kotashev, K. (2024, January 9). *Startup Failure Rate: How Many Startups Fail and Why in 2024?* Failory. https://www.failory.com/blog/startup-failure-rate

Kirby, D. A. (2004). Entrepreneurship Education: Can Business Schools Meet the Challenge? *Education + Training, 46*, 510-519. http://dx.doi.org/10.1108/00400910410569632

LUTES. (2024, April 4). *LUTES - The community is what makes us, us*. https://lutes.fi/about/

Maria 01. (2024, March 14). *Maria.io - the Nordics' leading startup campus*. maria.io. https://maria.io/

MassLight Team. (n.d.). *The evolution of startups from humble beginnings to disruptive innovations*. https://www.masslight.com/posts/evolution-of-startups-humble-beginnings-to-disruptive-innovations

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative Research: A Guide to Design and Implementation.* John Wiley & Sons. https://www.wiley.com/en-us/Qualitative+Research%3A+A+Guide+to+Design+and+Implementation%2C+4th+Edition-p-9781119003618

Medelyan, A. (2024, January 8). *Coding Qualitative Data: How to code Qualitative Research | Thematic*. Thematic. https://getthematic.com/insights/coding-qualitative-data/#:~:text=What%20is%20coding%20in%20qualitative,recurring)%20themes%20in%20each%20response.

Minimum Viable Product (MVP). (2022, May 27). https://www.productplan.com/glossary/minimum-viable-product/

Myklebust, J. P. (2023, January 21). *International student applications rise, but is it enough?* University World News. https://www.universityworldnews.com/post.php?story=20230120091522688

OpenAI. (2023*). ChatGPT (Mar 14 version) [Large language model]*. https://chat.openai.com/chat

Pride, J. (2018). *Unicorn tears: Why startups fail and how to avoid it.* John Wiley & Sons, Incorporated.

Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.) Sage Publications.

Quirkos (n.d.). *How to use Quirkos - Welcome*. https://www.quirkos.com/documentation/index.html

Riessman, C. K. (2008). *Narrative methods for the human sciences*. SAGE Publications.

Santisteban, J. & Mauricio, D. (2017). Systematic Literature Review of Critical Success Factors of Information Technology Startups. *Academy of Entrepreneurship Journal, 23(2)*, 1–23.

Securato, J., Adorno, O., Marinho, B., & Savoia, J. (2021). Successful startups: Do their entrepreneurs share a common characteristic? *Revista da Micro e Pequena Empresa, 14*(3), 3–18. https://www.researchgate.net/publication/350205530_Successful_startups_do_their_entrepreneurs_share_a_common_characteristic

Seinäjoki Entrepreneurship Society - SeiES. (2024, January 12). *Seinäjoki Entrepreneurship Society - SeiES*. https://seies.fi/

Startup Foundation. (2022). *Entrepreneurship Society Impact Report*. https://static1.squarespace.com/static/6373f52589d6e65537a988b9/t/64a40ac01dd8325af55fbed6/1688472258204/Startup+Foundation+%E2%80%93+ES+Impact+Report+2022.pdf.

World Bank Group & infoDev. (n.d.). *Business Incubation Definitions and Principles: Trainee Manual.* World Bank Group.https://documents1.worldbank.org/curated/pt/717091562157862660/pdf/BIM-Module-1-Business-Incubation-Definitions-and-Principles.pdf

Wordragen, B. V., & Tischlinger, D. (2019). What are the Critical Success Factors of Start-Ups in Digital Transformation [MA thesis, Jönköping University]. https://www.diva-portal.org/smash/get/diva2:1319856/FULLTEXT01.pdf

APPENDICES

Appendix 1. Interview with students.

Demographics

1.What is your current degree program and field of study?

2. Have you had any prior experience with entrepreneurship or startups?

Perceptions and Aspirations

3. What sparks your interest in creating a startup?

Challenges and Barriers

4. Do you find enough information on starting a new company in Finland in a language you understand and how do you do it?

5. If you have a business idea, what is stopping you from getting started with it? Is there any practical reason that is too challenging?

6. Are there any other challenges you have faced in obtaining information for your venture?

Needs and Resources

7. What support or resources do you need for starting a startup in Seinajoki?

8. Do you think networking is important. How has networking impacted your startup journey?

9. Do you think mentorship is important?

10. If you have an idea or is working on an idea, do you appreciate the fact that there are many organizations offering different support and information, or would you prefer it to be more centralized support from one place?

11. Are you satisfied with the way business environment and support in Seinäjoki?

12. Any final suggestion or thoughts you would like to share?

Appendix 2. Interview with Seinäjoki Entrepreneurship Society

1. How is the SeiES structured in terms of leadership roles, and how do these roles contribute to the society's activities?

Manpower and Skills

2. What is the current size of the SeiES in terms of board members and active members, and how are responsibilities distributed among them?

3. How much time do the board member spend each week for Seies's activities?

Funding and Financial Management

4. How does SeiES secure funding for activities, and what financial resources are available for new potential incubator programs?

Connections and Networks

5. What partnership or collaborations SeiES currently have within the local entrepreneurial ecosystem and the university?

Initiatives

6. Could you share examples of initiatives or events organized by the society, particularly those related to supporting student entrepreneurs?

7. Have there been any success stories resulting from the society's efforts in fostering entrepreneurship among students? Are you supporting any student entrepreneur now? If you are, with which resources are you supporting them?

8. Would you be open to developing an incubator program to systematically support startups?

9. What outcomes do you hope to achieve from having an incubator program for students?

Challenges and Mitigation Strategies

10. What potential challenges do you foresee in running an incubator program?

Interview for Accelerator and Incubator

Introduction

1. Can you introduce yourself and your role?

Program Components:

2. Could you provide an overview of the curriculum and any details of the accelerator/incubator program?

3. What is the reason for choosing the time and duration of the program

4. How are participants selected for the program, and what criteria do you consider during process?

Success Factors:

5. In your experience, what do you believe are the success factors that contribute to the effectiveness of the accelerator/incubator program?

6. What are the metrics or indicators you focus on to measure the success of participants?

7. Based on your experience, what are some common challenges participants might face during the program, and how do you address or mitigate these challenges?

8. What are some common challenges your ES might face and how do you address or these challenges

Continuous Improvement:

9. How do you gather feedback from participants, mentors, and other stakeholders to improve and iterate on the program?

10. How do you ensure that the program content remains relevant with the current needs of the job market?