



# Why Does the New Nordic Region Account for the Most Unicorn Start-Ups Per Capita?

A First-hand Perspective from the Key People behind New Nordic Unicorn Start-Ups

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## **ABOUT THE AUTHOR**

I am Ronny Eriksson, a 25-year-old serial entrepreneur and master's student in entrepreneurship and management at the Hanken School of Economics. During my five active years within the New Nordic start-up ecosystem, I have learned and experienced much of what works and what does not. I've experienced the golden years of Slush, through which many unicorns have emerged. As someone who loves the New Nordics and start-ups, it has become evident how these two groups relate to each other and support each other, with the former providing a fertile ground for nurturing unicorns.

*"The New Nordic region is the best at creating unicorn companies"*: This was one of the main statements I heard during my years as a start-up entrepreneur working with global peers. As a young entrepreneur, I was privileged to find myself sitting at the same table with older, more seasoned peers from other continents, who seemed to admire the successes of the start-up scene that was emerging in the New Nordic region. After hearing the above statement, the people around the table usually directed many questions at me, with them mainly focusing on the "Why?" and "How?" I managed to come up with some explanations, but truth be told, I had no evidence-based validation for any of them, nothing I could proudly stand behind.

For me, the question about why the New Nordics were so entrepreneurially successful became apparent. This was not just because I am a curious person but due to a realization about what an answer to this question could provide for further research, thus helping to guide the world to superior entrepreneurial success. In the beginning, I started to look at the question in the typical academic way, with me analyzing the literature to find answers. However, reading research paper after research paper only pointed to a research gap. Unicorn companies have been studied relatively infrequently, and when they are, they are often measured in terms of which country (predominantly the US and China) or continent has most of them.

One day, when searching through Google, I stumbled across an interesting analysis written by Brett Stone on Quora called "Unicorns per Capita: The Start-up metric we should all talk about" (Medium, 2019). Stone stated that "Unicorns per Capita" as a metric goes to the core of how successful a region is at fostering successful start-ups. In essence, the article compared Australia and America as regions to "start up" in. Scott continued by asserting the following: "...without knowing more about the subject, one would probably state; well, of course, Silicon Valley is in America; why would you even think about Australia?" This got Scott thinking about what if one were to measure how many unicorn companies there are per million people and use this as a reference for how successful regions are at fostering unicorn companies. Shockingly enough, Scott's results indicated that the USA was actually less successful than Australia at fostering unicorn startups when success was measured per capita.

For me, this was a *eureka* moment. If I were to use this same approach when looking at the New Nordic region, what would the results yield? Let's take Estonia vs. the US as a reference example. The US has a population of 328.2M people (2019) and 879 unicorn companies (Business Insider, 2021), so this translates to 2.67 Unicorns for every million people. Estonia, meanwhile, has a population of 1.3M people (2019), and they have only eight unicorn companies (Talinn.ee, 2021). However, this translates to 5.38 unicorns for every million people, which is more than double the rate of the US.

The numbers speak for themselves, but it still doesn't tell us anything as to why this is the case. To find the answer to the question that my overseas friends kept on asking, I had to turn my study upside down. To be more precise, instead of performing a literature review, I concentrated my initial attention on data gathering.

## **FOREWORD**

The basis for this research originally stemmed from my passion for the start-up scene and the New Nordics. Before you is a thesis titled "Why Does the New Nordic Region Account for the Most Unicorn Start-Ups Per Capita?" My work on answering this question relies on the ontological propositions of grounded theory (Glaser & Strauss, 1967), while the epistemology relies on the case study insights of Yin (2014) and Eisenhardt (1989).

In truth, I could not have got this thesis done without a strong support group, especially my parents, who supported me with love and understanding. I was also greatly supported by people who really saw the potential in me, each of whom has provided patient advice and guidance throughout the research process. I especially want to thank my supervisor, Joakim Vincent, for trusting the process of an entrepreneur. When times seemed hard, motivation was provided by Tina Karme. Finally, I want to give special credit to Daniil Pokidko for being there and guiding me closely every step of the way. Thank you all for your unwavering support.

## HANKEN SCHOOL OF ECONOMICS

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<p><b>Abstract:</b></p> <p><i>Unicorn start-ups</i> is a relatively new term that was introduced to the business world and popularized by venture capitalist Aileen Lee in 2013. At the time, such companies were a statistical anomaly, something almost mystical, because in 2013, the world had not seen many startup companies rise above the magical billion-dollar valuation. Today, the world has more than 800 such unicorn startups. These unicorns can be mostly found in the US and China, but for some reason, the New Nordic region is especially strong at fostering these companies, at least when measured per capita. Indeed, the New Nordic region has come to host the greatest density of unicorn companies on a population basis, with it having approximately one unicorn company for every million people, twice as much as any other region in the world. If ever region in the world could be this effective, we could see huge changes in the world as the number of unicorns rises dramatically. However, nobody has thus far examined this issue, so this thesis offers an initial step for triggering a new wave of research.</p> <p>The aim of this study is to answer the question of <i>why</i> there are so many unicorn companies per capita in the New Nordic region. In the attempt to answer this question, this research sheds some light on the unifying factors that have contributed to unicorn start-up success in the New Nordic region.</p>	
<b>Keywords:</b> Unicorn Start-Ups, New Nordic Region, Unicorns Per Capita	

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<p><b>Abstract:</b></p> <p>Unicorn (enhörning) start-ups är en relativt ny term som introducerades i affärsvärlden och populariserades 2013 av riskkapitalisten Aileen Lee. På den tiden var sådana företag en statistisk anomali, något nästan mystiskt, för 2013 hade världen inte sett många startup-företag höja sig över den magiska miljardvärderingen. Idag har världen mer än 800 av dessa unicorn startups. Dessa enhörningar finns mestadels i USA och Kina, men av någon anledning är Nya Norden (New Nordic) regionen särskilt starka på att fostra dessa företag, åtminstone mätt per capita. Faktum är att regionen har kommit att hysa den största tätheten av enhörningsföretag på befolkningsbasis, med ungefär ett enhörningsföretag för varje miljon människor, dubbelt så mycket som någon annan region i världen. Om någon region i världen någonsin skulle kunna vara så effektiv, skulle vi kunna se enorma förändringar i världen när antalet enhörningar ökar dramatiskt. Men ingen har hittills undersökt denna fråga, så denna avhandling erbjuder ett första steg för att starta en ny forskningsväg.</p> <p>Syftet med denna studie är att svara på frågan om varför det finns så många enhörningsföretag per capita i Nya Norden. I försöket att besvara denna fråga kastar denna forskning lite ljus över de förenande faktorer som har bidragit till framgång för unicorn start-up i Nya Norden.</p>	

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## 1 INTRODUCTION

In the 1980s, the latest cool thing was hip hop, creating superstars who everyone was talking about. Forty years later, start-up entrepreneurship follows the same trend in fostering idols and millionaires.

Start-ups are recently formed, young businesses that launch to market with the goal of offering a unique product or service, such that they find a product-market fit that accurately meets the needs of their customers (Investopedia, 2021). These businesses are built on innovation, so they address problems by developing new products or entirely new services, such that they disrupt the way people think about doing business in that field.

The hottest topic at the moment in the start-up world are the so-called "unicorn" startups, which are *companies that achieve a billion-dollar valuation in less than ten years*. Venture capitalist Aileen Lee coined the term in 2013 by using this mythical animal to represent the rarity of such successful ventures.

When talking about *unicorns*, most of us immediately think about the US or China, which together account for more than half of the world's unicorn startups. For many years, the world has focused on specific areas, such as Silicon Valley in California, as central hubs for launching start-ups and scaling them up into unicorns. This perception is not wrong, because the USA still accounts for 242 of the world's unicorn companies. Silicon Valley has long been seen as the model for a high-tech cluster. With the introduction of semiconductors, orange groves became offices. It then gained traction as startups expanded into technology behemoths, first in hardware, then in software, networking, e-commerce, and social media (Kenney, 2000; O'Mara, 2019; Saxenian, 1994). This modern-day gold rush is still going strong.

With this said, research within this area is understandably new. To elaborate further, studies of unicorns are trending, but until now, few empirical studies are available. This becomes clear when analyzing the available research for unicorns,

and the table below clearly highlights the number of publications that mention the concept of "unicorn(s)," as well as the total number of "unicorn(s)" mentions in these publications throughout their histories.

Year	Publications	Mentions
2016	2	3
2017	1	2
2020	6	29
2021	6	37

**Table 1** Articles with mentions of "Unicorn(s)" in full texts published by ETP, JBV, SEJ, and SMJ (Audretsch et.al., 2021; Bertoni et.al., 2021; Bradley et.al., 2021; Fu & Tietz, 2019; Garg & Furr, 2017; Henrekson & Sanandaji, 2020; Kwon & Sorenson, 2021; Sarasvathy, 2021; Shirokova et.al., 2020; Van Burg et.al., 2020; Welter et.al., 2017; Welter & Baker., 2021; Wurth et.al., 2021).

This table clearly shows that academic discussion about unicorns has increased exponentially since 2016, yet little research has been done. Furthermore, the data shows that the only studies that have been done focus on single Silicon Valley cases. This thesis aims to take a first step toward progressing on a much needed and fascinating research direction.

As a rising phenomenon, however, utilizing only this *absolute measure of success* (i.e. *the amount of start-ups achieving a billion-dollar valuation in less than ten years*) might not be an accurate way of measuring how effective a region has been at breeding *an efficient and sustainable entrepreneurial ecosystem*.

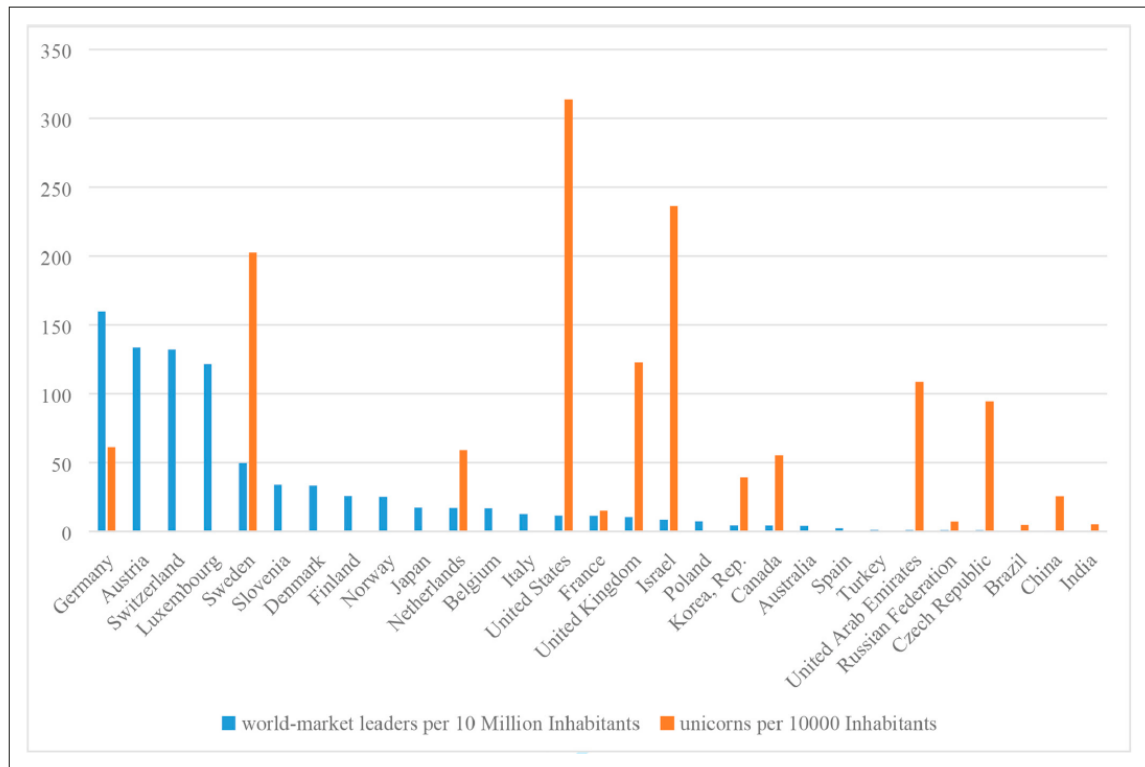
Today, the San Francisco Bay Area is home to more acknowledged unicorns, or firms with valuations in excess of a billion dollars, than any other section of the country, but Silicon Valley is not without its flaws. Few people can afford housing because it has become scarce and pricey. Employees are frequently forced to live

out of their cars and recreational vehicles, or share cramped rooms with strangers (e.g., Barr, 2019; Nieves, 2000). Apple, Alphabet, and Facebook, for example, shower their staff with compensation and perks in order to recruit the best people, while smaller businesses are struggling to keep up with the escalating costs of doing business (e.g., Kendall & Castaneda, 2019; Staff, 2019). Recruiting and retaining the proper talent can be tough for entrepreneurs in particular.

Much of the information that can be found about unicorn companies and their emergence mostly focuses on a single metric that prioritizes quantity over efficiency. According to scholars (Baker & Welter, 2018; Welter et al., 2019) the one-dimensional, limited *measure of entrepreneurial success* not only confines an analysis to specific theories and situations, but it also limits how entrepreneurship may be understood in terms of the contexts assumed and theoretical considerations pursued by entrepreneurship academics.

Among others, Davidsson (2015) suggests the need to redefine entrepreneurial success in order to revitalize the discussion. A conversation around this topic in a context of unicorns started on Medium (2019), with the argument going that a better metric for assessing effectiveness would be to look at unicorns on a per capita basis. This represents how many unicorn companies there are in relation to the number of inhabitants. Indeed, the existing academic literature does not shed any light on unicorn companies per capita, despite the disparities across different countries and continents, as mentioned, being so staggering!

The single illustration of this measure is provided by Audretsch et.al., (2021) in their recently published paper (see below):



**Figure 1.** Geographical distribution of niche and scale economies. *Source.* own depiction, data retrieved from Rammer and Spielkamp (2015), data of unicorns from Fortune (2017) measured as per 10 Million capita. For reasons of graphical representation the values for unicorns are per 100,000 capita.

**Figure 1**      **Geographical distribution of niche and scale economies. Screenshot from Audretsch et.al., (2021), p. 1280.**

However, considering the pace of modern start-up development, this illustration needs to be updated. For example, Estonia, which now accounts for the most unicorn companies per capita in the world, does not even emerge on the above graph. Interestingly, the so-called New Nordic region punches well above its weight in this particular metric. This phenomenon creates an interesting research question – what are the factors behind such overwhelming success? In other words, *Why does the New Nordic region account for the most unicorn companies per capita?*

The purpose of this study is to develop an understanding of the reasons behind the New Nordics' success. With this in mind, this thesis aimed to answer the following research question:

- *Why does the New Nordic region account for the most unicorn companies per capita?*

In answering this question, I wanted to understand the common experiences of unicorn founders, as the people with first-hand experience, as well as the elements that influenced their success and the common models behind this success.

### **Overview of Study Approach**

Although it is critical for theorists to be aware of their surroundings, the "who, where, and when" of a theory is usually discovered through further testing of an initial, rudimentary theoretical statement (i.e., What?, How?, Why?). A description and explanation are the two most important components of a simple theory (Whetten, 1989). As one author puts it: "What and How describe; only Why explains" (Whetten, 1989, p.491).

The attempt to answer the question of "Why?" is generally the most fruitful, but it is also the most difficult avenue of theory development. It frequently encourages us to change our viewpoints and perceptions in ways that call into question the underlying rationales that underpin commonly held beliefs (Amit, Glosten & Muller, 1993; Baron, 2004; Whetten, 1989).

We also tend to theorize ahead of time, increasing the chances that the facts that emerge from a study will be twisted to fit with a particular theory. Provisional hypotheses, tentative guesses, commonsensical hunches, and other provisionally held presuppositions about the world are sometimes the most we can do when it comes to perceiving, grasping, and perhaps deciphering empirical occurrences (Amit, Glosten & Muller, 1993; Baron, 2004; Whetten, 1989).

I will therefore try to answer the research question in the following manner:

- First, I will describe my ontological<sup>1</sup> point of view for this research topic with the aim of providing the reader with a deeper understanding of this study's premises. I will also justify the use of the grounded theory approach that I chose for this particular purpose.
- Second, I will describe the selected methodological underpinnings for this research (i.e., the case study research method) and how this epistemological<sup>2</sup> approach matches with the ontological premises of the grounded theory propositions.
- Next, I will use the ontological and epistemological insights as guidelines for data collection and analysis.
- In addition, I will use insights about common method research biases to avoid or substantially minimize common errors, thus increasing the reliability of the findings. I will also use other supportive methods (i.e., Gioia's method) to bolster the robustness of my data collection and its analysis.
- Finally, I will present the findings and form theoretical propositions for further research within this novel research niche.

I believe this study is making a significant contribution to the current state of research on unicorns, entrepreneurial success, and sustainable entrepreneurship ecosystem since there currently appears to be a gap in the literature about the interconnection of these topics.

## **Central Definitions**

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<sup>1</sup> Ontology: Existence, being, becoming, and reality are all concepts studied in this branch of philosophy. It addresses issues such as how entities are classified into fundamental categories and which of these entities exist at the most fundamental level. Ontology is a major branch of philosophy known as metaphysics, and it is sometimes referred to as the science of being (Hofweber, 2020).

<sup>2</sup> Epistemology: Knowledge is the subject of this branch of philosophy. Epistemologists research the nature, origins, and scope of knowledge, as well as epistemic justification, belief rationality, and other related topics. Epistemology, along with other major subfields such as ethics, logic, and metaphysics, is considered a major subfield of philosophy (Steup, 2005).

**Unicorn Start-Up:** A unicorn is a privately held startup with a valuation of more than \$1 billion, at least as most people in the financial world refer to it. Airbnb, an accommodation-sharing company, and Epic Games, a video game company, are two of the best-known unicorns in the United States.

The first article in the venture capital world to mention unicorns was Aileen Lee's "Welcome to the Unicorn Club: Learning from Billion-Dollar Startups." According to her research, only 0.07 percent of software startups founded in the 2000s ever reached a billion-dollar valuation, so she posited that such companies were as rare as unicorns (Investopedia, 2021)

**New Nordics.** The Nordic countries, which are also known as the Nordics or Norden (literally meaning "the North"), form a geographically and culturally related region in Northern Europe and the North Atlantic Ocean. Denmark, Finland, Iceland, Norway, and Sweden are all part of it, as are the autonomous territories of the Faroe Islands and Greenland, as well as the autonomous region of the Åland Islands. Estonian Prime Minister Taavi Rivas described his country as a *Uus Pohjamaa* (New Nordic Country) in 2015. In September 2016, the heads of the coalition government held a conference to discuss Estonia's future as a Nordic country. As a result, this paper will refer to the Nordic countries plus Estonia as the "New Nordics" (Nordic Council of Ministers, 2021).

**Unicorn companies per capita:** This is a measure of how many unicorn companies a country or region has produced for every million people of the population.

*The calculation formula:*

The total number of unicorn companies in a certain region/country (TU) is divided by the total population for that country/region (TP) to get the unicorns per capita (UPC)

$(TU \div TP = UPC)$  (Medium, 2021)

## **2 STUDY DESIGN**

This chapter presents and justifies my chosen design for conducting this study, namely grounded theory approach. I initially chose to follow the approach of Glaser and Strauss (1967), but I made several adjustments throughout the process to better align the methodology with the chosen data-analysis approach.

### **2.1 Ontological Premises**

*"The temptation to form premature theories upon insufficient data," remarked Sherlock Holmes to Inspector Mac-Donald in The Valley of Fear (Baring-Gould, 1967), "is the bane of our profession." (Van Maanen, 1979, p.540)*

Scholars claim that we tend to theorize ahead of the facts, thus creating the potential for the facts that emerge from our research to be twisted to fit a particular theory. Yet it is sometimes the most we can do when it comes to perceiving, grasping, and perhaps deciphering empirical occurrences, provisional hypotheses, tentative speculations, commonsensical hunches, and other tenderly held presuppositions about the universe (Maretto, 2009).

According to Van Maanen (1979), fieldwork misdirection is caused by a number of variables, one of which is the researcher's own lack of awareness of the tacit roots of his or her own view of the social environment. Thus, when it comes to organizational research, the Sherlockian prescription is simple, sequential, and reflexive: "less theory, better facts; more facts, better theory" (Van Maanen, 1979, p.548). Following this approach, this research builds from the bottom-up using the grounded theory approach as its ontological anchor.

## **2.2 The Grounded Theory Approach**

The grounded theory approach is a powerful qualitative analysis method that uses a series of "tests" and "revisions" to create a new theory (or theories) based on the available data. The important thing to remember when applying grounded theory is to approach the analysis with an open mind and let the data speak for itself rather than relying on pre-existing hypotheses or theories. In other words, the analysis must be built from the ground up (Charmaz, 2014; Glaser & Strauss, 1967; Oktay, 2012).

Grounded theory, which was first developed by sociologists Barney Glaser and Anselm Strauss, represents a research methodology that involves considering and conceptualizing data in a systematic way. It has been used in studies with a wide range of populations, including ones related to divorce remarriage and professional socialization.

The goal of grounded theory researchers is not to find the "truth" but rather to try to comprehend what has occurred in the lives of the study's participants. When using grounded theory, the researcher does not form hypotheses prior to data collection, as is common in traditional research, because the hypotheses would not be supported by the data (Birks & Mills, 2015; Glaser & Strauss, 1967).

Grounded theory research is often fresh with the potential for novel discoveries in science and other fields, because it is not tied to any pre-existing theories. The methodology entails collecting and analyzing data in order to construct hypotheses and theoretical propositions (Birks & Mills, 2015; Charmaz, 2014; Glaser & Strauss, 1967).

In contrast to traditional scientific research, the grounded theory methodology begins by formulating a falsifiable hypothesis, which is tested with observable data with an unknown outcome. A grounded theory study is likely to start with a question or even just the gathering of qualitative data. Researchers then become aware of ideas or concepts as they examine the collected data. The data is said to "emerge" with these ideas/concepts. The researchers assign codes to these

ideas/concepts to succinctly summarize them. Codes can then be grouped into higher-level concepts and then into categories as more data is collected and reviewed (Glaser & Strauss, 1967; Morse, 2009).

Grounded theory allows a researcher to come up with new theories to explain human behavior. However, it adheres to a set of guidelines that differs from that of most other qualitative research methods:

**No pre-research literature review:** It is thought that reviewing the literature in the topic area leads to the formation of preconceived assumptions about what will be discovered. The researcher is considered to become sensitive to concepts in the literature. Grounded theory, on the other hand, believes that theoretical conceptions should emerge from the facts and be unaffected by previous work. The literature should only be read during the sorting stage, and it should be viewed as further data to code and compare with what has already been coded and generated.

**No talk:** A researcher's motivation is depleted when he or she talks about a hypothesis before it has been put down. Speaking can be used to express praise or criticism, but both might detract from the goal to build and refine concepts and hypotheses in memos. Positive feedback can make researchers content with what they have, according to Glaser and Strauss (1967), whereas negative feedback can erode their self-confidence. Any discussion of the grounded theory should be restricted to individuals who can provide assistance to the researcher without influencing their final results.

Grounded theory is based on the idea that everything is data, implying that everything a researcher encounters while researching a specific topic is data, not just interviews and observations but also anything else that will aid the researcher in developing concepts for the emerging theory. Indeed, field notes can come from informal interviews, lectures, seminars, expert group meetings, newspaper articles, Internet mailing lists, and even television shows and conversations with friends (Charmaz, 2014; Ralph, Birks & Chapman, 2015).

As a result, in this work, the theoretical propositions are generated, which in turn opens up the door for further research to support or reject these propositions. It was my desire to uncover the perspectives of unicorn startup founders, who have first-hand experience in developing such ventures, so grounded theory seemed best suited to capture insights from the perspectives of these people.

### **3 RESEARCH METHODOLOGY**

In this chapter, I describe the research design and methodology for the study. As mentioned earlier, I chose to adopt a grounded theory research approach to help me answer the research question, namely "Why does the New Nordic region account for the most unicorn startups per capita?" This method was chosen because it has the potential to provide insight into a new and complex subject. The insights from Robert Yin's case study research methodology, complimented by the Gioia method (Gioia et al., 2013), allowed me to interpret and act upon the acquired data in a highly structured, systematic, theoretically justifiable, and academically recognized format.

#### **3.1 The Data-Collection Procedure**

*When Christopher Columbus went to Queen Isabella to ask for support for his "exploration" of the New World, he had to have some reasons for asking for three ships (Why not one? Why not five?), and he had some rationale for going westward (Why not south? Why not south and then east?). He also had some (mistaken) criteria for recognizing the Indies when he actually encountered it. In short, his exploration began with some rationale and direction, even if his initial assumptions might later have been proved wrong (Wilford, 1992 in Yin, 2009 p.29).*

Grounded theory's premises provide a foundation for understanding the research topic but give only limited guidance about how to conduct the research methodologically. The case study research strategy fills this void by providing grounded theory researchers with clear and specific instructions for how to collect and analyze data.

A case study is a research strategy that focuses on gaining a better understanding of the dynamics that exist within a particular setting, and it can consider a single case or multiple cases, as well as have multiple levels of analysis (Hartley, 2004; Yin, 1984). A case study examines a current phenomenon (i.e., the "case") in its

real-world setting, and it is especially useful when the distinction between the phenomenon and the context is blurred. Archives, interviews, questionnaires, and observations are commonly applied data-collection methods in case studies.

When: (1) the key research questions are "how" or "why" inquiries; (2) a researcher has little or no influence over behavioral events; and (3) the focus of the study is a contemporaneous (as opposed to fully historical) phenomenon, Yin (1984) recommends case study research. Table 2 summarizes a comparison of different research methodologies and their suitability for collecting specific data.

METHOD	Form of Research Question	Requires Control of Behavioral Events?	Focuses on Contemporary Events?
Experiment	How? Why?	Yes	Yes
Survey	Who? What? Where? How many? How much?	No	Yes
Case study	How? Why?	No	Yes

**Table 2 Comparison of case study with experiment and survey approaches (Yin, 2014)**

The case study research method involves a set of procedures aimed at protecting data collection against threats to validity, preserving the chain of evidence, and investigating and testing competing explanations (Hartley, 2004; Yin, 2014).

The most difficult and least codified part of the process is data analysis, which lies at the heart of generating theoretical propositions from a case study. Published studies typically describe research sites and data-collection methods but leave little room for discussion, so the analysis, data, and conclusions are frequently separated by a large chasm. The research problem is also frequently open-ended, so the volume of data makes it even more daunting. The goal is therefore to become intimately acquainted with each case as a separate entity (Eisenhardt, 1989; Gerring, 2006).

One strategy, according to Eisenhardt (1989), is to look for within-group and intergroup similarities, because this allows the unique patterns of each case to emerge before investigators try to generalize patterns across cases.

According to Yin (2014), there is no ideal number of cases, but according to Eisenhardt (1989), 4–10 cases usually works well. Indeed, it is often difficult to generate a theory with much complexity when there are fewer than four cases, so its empirical foundation would likely be unconvincing. In contrast, with more than ten cases, dealing with the complexity and volume of the data becomes difficult. The ability to conduct 6 or 10 case studies within a multiple-case design is analogous to being able to conduct 6 or 10 experiments on related topics in that some cases (2 or 3) would be literal replications, while others (4 to 6) might be designed to pursue two different patterns of a theoretical replication. The most important issue here is for the overall collection of cases to achieve theoretical saturation.

### **3.2 Defining the Case**

Prior to collecting screening data, one should define a set of operational criteria by which candidates will be deemed qualified to serve as cases (Eisenhart, 1989; Yin, 2014). If multiple candidates qualify to serve as cases, the more a researcher can study, the better the outcome will be, subject to resource constraints. Each case must be carefully chosen to either (a) predict similar results (literal replication) or (b) predict contrasting results but for expected reasons (theoretical replication).

### **3.3 Participant selection**

*It became evident that all our respondents had fairly recently graduated from MSc (Econ.) programmes. They had not been confronted with the*

*picture portrayed in these textbooks. The lesson we learned for the future was to always avoid staff who are not on the front line. They have time but no experience. It is only those who have "dirt under their fingernails" who understand where the important problems lie. (Johanson, 2004, p. 4)*

I selected a group of participants using theoretical sampling in order to allow the theoretical research propositions to emerge. This allowed for the emergence of themes, ideas, and questions during the data-collection process (Glaser & Strauss, 2017; Stern, Bryant & Charmaz, 2007).

I selected the participants based on the following criteria:

- A. They must have played a key role in the emergence of a particular unicorn company.
- B. The company should have attained unicorn status in less than ten years.
- C. The founder and the company must have been in the New Nordic region.

These selection criteria helped me to ensure that participants had the abovementioned "dirt under their fingernails" (Johanson, 2004, p.4) for this particular study. I identified study participants using my personal network, which I consider a unique advantage for research within this field. This strategy yielded seven participants, four of whom I knew from my existing professional network and a further three who were referred to me by others. I recruited the participants by emailing invitations to participate in the study. The invitations explained the study's purpose, the eligibility requirements, and the expectations of participants (see Appendix A). Those who wished to participate in the study contacted me to set up interviews.

### **3.4 Research Ethics**

On the side of research ethics, I followed Yin's (2014) advice by gaining informed consent from all persons participating in the case study, protecting the privacy and confidentiality of participants, and selecting participants equitably, so that

no groups would be unfairly included or excluded from the research. In addition, I served the Hanken School of Economics' official consent form to all the participants at the beginning of each interview (see Appendix B). They all willingly signed the consent form, indicating that they understood their role in the study and gave their consent to participate.

### **3.5 Data Collection**

Charmaz (2006) claimed that collecting rich data is essential for gathering "solid material for building a significant analysis" (p.14). Grounded theory allows the researcher to see the world through the eyes of the participants (i.e., their feelings, perceptions, observations, and so on), thus yielding very rich data. According to Charmaz, grounded theory data collecting places a strong emphasis on action and process analysis, with the central inquiry being "What is going on here?"

Interviews, which are described as directed conversations for collecting data and gaining understanding, are used to answer this question. I gathered data for this study by conducting one-on-one interviews with the participants who met the study's eligibility criteria. I used intensive interviewing to allow for in-depth exploration of the research topic based on the ontological and epistemological foundations described in the previous chapters. The participants were able to share their personal interpretations of their experiences, including their thoughts, feelings, and the lessons they had learned.

### **3.6 Interview Questions**

According to Charmaz (2006) and Yin (2014), a set of broad, open-ended, non-leading questions encourages participants to describe and reflect on the experience they are sharing, and not adopting an interrogative tone can help drive conversation during interviews. To help uncover additional details and keep interviews moving, probing follow-up questions to learn more about the

experiences of the interviewees as they communicate their points of view about the key research question is also necessary.

A basic list of desired attributes, according to Yin (2014), might include the ability to:

- a) ask good questions,
- b) ask open-ended questions,
- c) be a good listener,
- d) remain adaptable,
- e) have a firm grasp of the issues being studied, and
- f) avoid biases.

As Yin (2014, p.69) suggests, *"One insight into asking questions is to understand that research is about questions, not necessarily about answers."* Yin continues (2014) by identifying five levels of questions that researchers should consider when conducting an interview:

- a) questions asked of specific interviewees,
- b) questions asked about the individual case (these are the questions in the case study protocol to be answered by the researcher during a single case, even when a single case is part of a larger, multiple-case study),
- c) questions asked about the pattern of findings across multiple cases,
- d) questions asked about an entire study (e.g., calling on information beyond the case study evidence and including other literature or published data that may have been reviewed),
- e) normative questions about policy recommendations and conclusions that go beyond the narrow scope of the study.

In summary, the information presented above provided me with a deeper understanding of the interview process and the related issues that needed to be considered throughout the data-collection process, thus helping me minimize subsequent errors. Additionally, it was important to acknowledge and try to minimize the common method research biases, which according to Podsakoff et

al. (2003, 2012), tend to lead to more socially desirable responses and lower accuracy when using face-to-face interviews as the primary means for collecting data. I will describe the common method biases and elaborate on how I tried to avoid, or at least substantially mitigate, them in the following section.

### 3.7 Avoiding Research Bias

Prior to collecting screening data, according to Yin (2014) and Eisenhart (1989), A researcher should have a set of operational criteria for determining whether or not individuals are competent to serve as cases. If multiple candidates are qualified to serve as cases, the more a researcher can study, the better, subject to resource constraints. Each case must be carefully chosen to either (a) predict similar results (i.e., literal replication) or (b) predict contrasting results but for expected reasons (i.e., theoretical replication).

A pilot case study is more formative, assisting the researcher in developing relevant lines of questions and perhaps even providing some conceptual clarification for the research design (Yin, 2014).

SOURCE OF EVIDENCE	Strengths	Weaknesses
Interviews	<ul style="list-style-type: none"> <li>• Targeted - focuses directly on case study topics</li> <li>• Insightful - provides explanations as well as personal</li> </ul>	<ul style="list-style-type: none"> <li>• Bias due to poorly articulated questions</li> <li>• Response bias</li> </ul>

	views (e.g., perceptions, attitudes, and meanings)	<ul style="list-style-type: none"> <li>• Inaccuracies due to poor recall</li> <li>• Reflexivity - interviewee gives what interviewer wants to hear</li> </ul>
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**Table 3 The strengths and weaknesses of interviews as the main source of evidence (Yin, 2014)**

In addition to their strengths, interviews have weaknesses, as shown in Table 2. Unfortunately, reporting on one's own behavior is a tough cognitive activity, and the phrasing, structure, and context of questions can have a big influence on how people respond. (Godin et al., 2008; Schwarz & Oyserman, 2001).

Furthermore, a large body of evidence suggests that interviews are often an unreliable source of information. As described by Schwarz and Oyserman, (2001), even seemingly simple behavioral questions pose complex cognitive challenges. Furthermore, interviews are highly context-dependent, and even minor changes in the wording, format, or order of questions can have a significant impact on the outcomes (Levitt, Bamberg, Creswell, Frost, Josselson & Suárez-Orozco, 2018; Podsakoff, MacKenzie, Lee & Podsakoff, 2003; Schwarz & Oyserman, 2001).

To understand the underlying reasons for this impact and develop possible strategies to substantially mitigate/minimize it, I used the illustrative description of "responding to a question process" that was provided by Schwarz and Oyserman (2001):

- Step 1: Understanding the question,
- Step 2: Recalling relevant behavior,

Step 3: Inferring and estimating,

Step 4: Mapping the answer onto the response format, and

Step 5: "Editing" the answer for reasons of social desirability.

**Table 4 Respondents' tasks when responding to a question**

In addition, according to Schwarz and Oyserman (2001), respondents tend to use various estimation strategies to arrive at a meaningful estimate. The researcher's response options may also provide further information that respondents use in interpreting an asked question, as well as suggest estimation strategies that may systematically bias the results of the interview.

The same authors go on to say that participants must first comprehend a question before deciding which behavior to report (Step 1: Understanding the question). To do so, they use a wide range of contextual data in ways that most researchers are unaware of. Participants must then recall information about their actions from memory (Step 2: Recalling relevant behavior). In most cases, however, recall will be sporadic at best, so participants will have to rely on various inference and estimation strategies to arrive at a conclusion (Step 3: Inferring and estimating). Participants are rarely able to report an answer in their own words after arriving at one in their minds. Instead, they must map it onto the response options provided by the researcher (Step 4: Mapping the answer onto the response format). Finally, due to social desirability and self-presentation concerns, participants may be hesitant to disclose their answer frankly, thus they "censor" their response at this point (Step 5: "Editing" the answer).

Describing the common method biases in the same context, Podsakoff et al. (2003) summarized them in the table below (Table 4).

Table 3  
*How Common Method Biases Influence the Question Response Process*

Stages of the response process	Activities involved in each stage	Potential method biases
Comprehension	Attend to questions and instructions, represent logical form of question, identify information sought, and link key terms to relevant concepts	Item ambiguity
Retrieval	Generate retrieval strategy and cues, retrieve specific and generic memories, and fill in missing details	Measurement context, question context, item embeddedness, item intermixing, scale size, priming effects, transient mood states, and item social desirability
Judgment	Assess completeness and accuracy of memories, draw inferences based on accessibility, inferences that fill in gaps of what is recalled, integrate material retrieved, and make estimate based on partial retrieval	Consistency motif (when it is an attempt to increase accuracy in the face of uncertainty), implicit theories, priming effects, item demand characteristics, and item context-induced mood states
Response selection	Map judgment onto response category	Common scale anchors and formats and item context-induced anchoring effects
Response reporting	Editing response for consistency, acceptability, or other criteria	Consistency motif (when it is an attempt to appear rational), leniency bias, acquiescence bias, demand characteristics, and social desirability

*Note.* The first two columns of this table are adapted from *The Psychology of Survey Response*, by R. Tourangeau, L. J. Rips, and K. Rasinski, 2000, Cambridge, England: Cambridge University Press. Copyright 2000 by Cambridge University Press. Adapted with permission.

**Table 5 How common method biases influence the question response process (Podsakoff et al., 2003)**

Furthermore, Podsakoff et al. (2003) summarized the sources of common method biases that must be considered when conducting research, as shown in Table 5 below.

Table 2  
Summary of Potential Sources of Common Method Biases

Potential cause	Definition
Common rater effects	Refer to any artifactual covariance between the predictor and criterion variable produced by the fact that the respondent providing the measure of these variables is the same.
Consistency motif	Refers to the propensity for respondents to try to maintain consistency in their responses to questions.
Implicit theories (and illusory correlations)	Refer to respondents' beliefs about the covariation among particular traits, behaviors, and/or outcomes.
Social desirability	Refers to the tendency of some people to respond to items more as a result of their social acceptability than their true feelings.
Leniency biases	Refer to the propensity for respondents to attribute socially desirable traits, attitudes, and/or behaviors to someone they know and like than to someone they dislike.
Acquiescence biases (yea-saying and nay-saying)	Refer to the propensity for respondents to agree (or disagree) with questionnaire items independent of their content.
Mood state (positive or negative affectivity; positive or negative emotionality)	Refers to the propensity of respondents to view themselves and the world around them in generally negative terms (negative affectivity) or the propensity of respondents to view themselves and the world around them in generally positive terms (positive affectivity).
Transient mood state	Refers to the impact of relatively recent mood-inducing events to influence the manner in which respondents view themselves and the world around them.
Item characteristic effects	Refer to any artifactual covariance that is caused by the influence or interpretation that a respondent might ascribe to an item solely because of specific properties or characteristics the item possesses.
Item social desirability	Refers to the fact that items may be written in such a way as to reflect more socially desirable attitudes, behaviors, or perceptions.
Item demand characteristics	Refer to the fact that items may convey hidden cues as to how to respond to them.
Item ambiguity	Refers to the fact that items that are ambiguous allow respondents to respond to them systematically using their own heuristic or respond to them randomly.
Common scale formats	Refer to artifactual covariation produced by the use of the same scale format (e.g., Likert scales, semantic differential scales, "faces" scales) on a questionnaire.
Common scale anchors	Refer to the repeated use of the same anchor points (e.g., <i>extremely</i> , <i>always</i> , <i>never</i> ) on a questionnaire.
Positive and negative item wording	Refers to the fact that the use of positively (negatively) worded items may produce artifactual relationships on the questionnaire.
Item context effects	Refer to any influence or interpretation that a respondent might ascribe to an item solely because of its relation to the other items making up an instrument (Wainer & Kiely, 1987).
Item priming effects	Refer to the fact that the positioning of the predictor (or criterion) variable on the questionnaire can make that variable more salient to the respondent and imply a causal relationship with other variables.
Item embeddedness	Refers to the fact that neutral items embedded in the context of either positively or negatively worded items will take on the evaluative properties of those items.
Context-induced mood	Refers to when the first question (or set of questions) encountered on the questionnaire induces a mood for responding to the remainder of the questionnaire.
Scale length	Refers to the fact that if scales have fewer items, responses to previous items are more likely to be accessible in short-term memory and to be recalled when responding to other items.
Intermixing (or grouping) of items or constructs on the questionnaire	Refers to the fact that items from different constructs that are grouped together may decrease intraconstruct correlations and increase interconstruct correlations.
Measurement context effects	Refer to any artifactual covariation produced from the context in which the measures are obtained.
Predictor and criterion variables measured at the same point in time	Refers to the fact that measures of different constructs measured at the same point in time may produce artifactual covariance independent of the content of the constructs themselves.
Predictor and criterion variables measured in the same location	Refers to the fact that measures of different constructs measured in the same location may produce artifactual covariance independent of the content of the constructs themselves.
Predictor and criterion variables measured using the same medium	Refers to the fact that measures of different constructs measured with the same medium may produce artifactual covariance independent of the content of the constructs themselves.

Table 6 Summary of the potential sources of common method biases (Podsakoff et al., 2003)

The following causes of bias are particularly relevant to the interview methods used in this study, with them all being examples of the consequences of positive and negative item wording:

- a) Consistency motif,
- b) Implicit theories,
- c) Desirability in the eyes of others,
- d) Acknowledges biases,
- e) State of mind,
- f) Item context effect,

- g) Item priming effects,
- h) Item embeddedness, and
- i) Context-induced mood.

As a complicated social event, an interview demands a theoretical understanding or, more properly, a reflexive approach in which a range of theoretical ideas can be evaluated and implemented when appropriate, according to Alvesson (2003). Any interpretations based on interview information without such a theoretical background risk being naive, therefore any interpretations will be on unstable basis. It's important not to oversimplify and idealize the interview situation by assuming that the interviewee is primarily a competent and truthful truth-teller who is providing data about his or her inner-self (i.e., experiences, feelings, values) or "facts" about the organization in the service of science (given a correct interview technique).

Furthermore, different identities—as well as different inclinations for interpreting the entire interview situation, the different specific questions, and evaluations of what kinds of answers are appropriate—are invoked when someone is interviewed as a "woman," a "leader," or a "middle-level manager," for example. Even though these terms may refer to the same biological person, the work situation and the organizational conditions of a woman, leader, and middle manager are clearly not the same (Alvesson, 2003).

In conclusion, the preceding explanation implies that truth has no defined meaning, and that "truth (should be considered) as he or she knows it" (Alvesson, 2003, p.17). This demands the capacity to analyze data using multiple "seeing as" techniques.

### **3.8 Guidelines for the Data Analysis**

Once the data were collected, grounded theory analysis involved the following steps:

#### **Coding**

**Coding text and theorizing:** In grounded theory research, the search for a theory begins with the first line of the first coded interview. Line-by-line coding is used to codify short parts of text so that useful concepts can be discovered where key phrases are underlined. Names are given to these concepts. The procedures described above are then repeated with a new portion of text. This is referred to as "open coding" by Strauss and Corbin (1997). Part of the method entails analyzing data to find conceptual components. Theorizing is the next phase, which entails gathering notions and thinking about how they relate to a larger, more comprehensive concept.

#### **Memoing**

The core of grounded theory methodology is theoretical memoing (Glaser, 1998). "Memos are theorizing write-ups of ideas about substantive codes and their theoretically coded relationships as they emerge during coding, data collection and analysis, and memoing," according to Glaser (1998, p. 24). To put it another way, memos are scribbled notes about the observations' ideas and conclusions. These notes act as a link between the coding and the first draft of the final report. Memorization begins with the first concept identified and continues until all of the concepts have been processed, assisting in the development of theories through the process (and habit!) of memorization.

#### **Sorting and pattern matching**

According to Yin (1998), one should start their analytic strategy by "playing" with the data, looking for promising patterns, insights, and concepts. These may appear as the researcher works with the data, for example, by:

- 1) juxtaposing data from two different interviewees,
- 2) putting information into different arrays,

- 3) creating a matrix of categories and placing the evidence within such categories,
- 4) creating data displays (e.g., flowcharts and other graphics) for examining the data,
- 5) tabulating the frequency of different events, and/or
- 6) sorting information into chronological order or using some other tempo.

When the same results are obtained in multiple cases, the individual cases are literally replicated, allowing the cross-case results to be stated with even more confidence (Glaser, 1998).

### **Writing up the results**

The sorting process is followed by documenting the sorted memos. A written theory takes shape at this point, and the various categories are now linked to one another and the central variable. The theory should include a comprehensive description of the key emergent concepts. The researcher can also use tables and/or figures to improve readability.

## 4 RESEARCH DESIGN

This chapter describes the research design for this study, with this being informed by the theoretical approach and methodology described earlier.

### 4.1 Study Participants

This study involves seven participants who had been active founders of unicorn companies in various industries within the New Nordic region. The participants had played vital roles in ventures that achieved unicorn status within ten years. They had held their positions for varying lengths of time, but all had been active from start-up to unicorn status, and all had lived or worked in the New Nordic region when scaling up their unicorn companies.

The professional experience of participants varied in terms of the number of years they had been active within unicorn companies. All participants had held multiple founder positions throughout their professional careers in which they had scaled up operations. To maintain confidentiality, I assigned a pseudonym to each interview participant.

Participant	Unicorn company	Interview number
John	Bolt	1
Carl	Rovio	2
James	Nortvolt	3
Henry	Wolt	4
Tom	Rovio	5
Robert	Pipedrive	6
Michael	Aiven	7

**Table 7 Overview of the study's participants in chronological order of interview**

During each interview, the participants provided me with details about their experiences in leading New Nordic unicorns and, based on that, their opinions

about why there are so many unicorn companies per capita in the New Nordic region. Many of the participants opted to describe experiences from their current organizations in addition to those from previous unicorn companies.

The first interview that was conducted served as a "test" to assess the utility of the key research question for this study (i.e., Why does the New Nordic region account for the most unicorn startups per capita?) and identify a variety of possible supporting and probing questions that would naturally emerge from the conversation.

The seven interviews took place between September 20, 2021 and October 15, 2021. All were conducted online and were conversational in tone and flow, thus allowing the participants to openly share their feelings, opinions, intentions, and actions at length and in-depth. The interviews ranged from 30 to 60 minutes in duration, and with the permission of the participant, each interview was recorded into an audiovisual file that could be used later to create a transcription. Detailed notes were also taken during each interview, followed by a memo to capture thoughts and themes that could be applied to data collection and analysis.

To uncover in-depth data, I asked probing questions during each interview. For example, when a participant would tell me about the various factors that influenced the unicorn's emergence, I asked the participant to elaborate on these factors. My goal in asking probing questions was to learn as much as I possibly could about the thinking and reasoning behind the participants' positions. Inquisitive questions elicited in-the-moment reflections from the participants, resulting in additional data and insights. Probing questions sparked discussions that delved deeper into the experiences mentioned by the participants during these reflections, and these reflections were an unintended result of the interviews. I therefore sought them in all subsequent interviews because they provided a greater depth of data for informing this research.

## **4.2 The Data-Analysis Process**

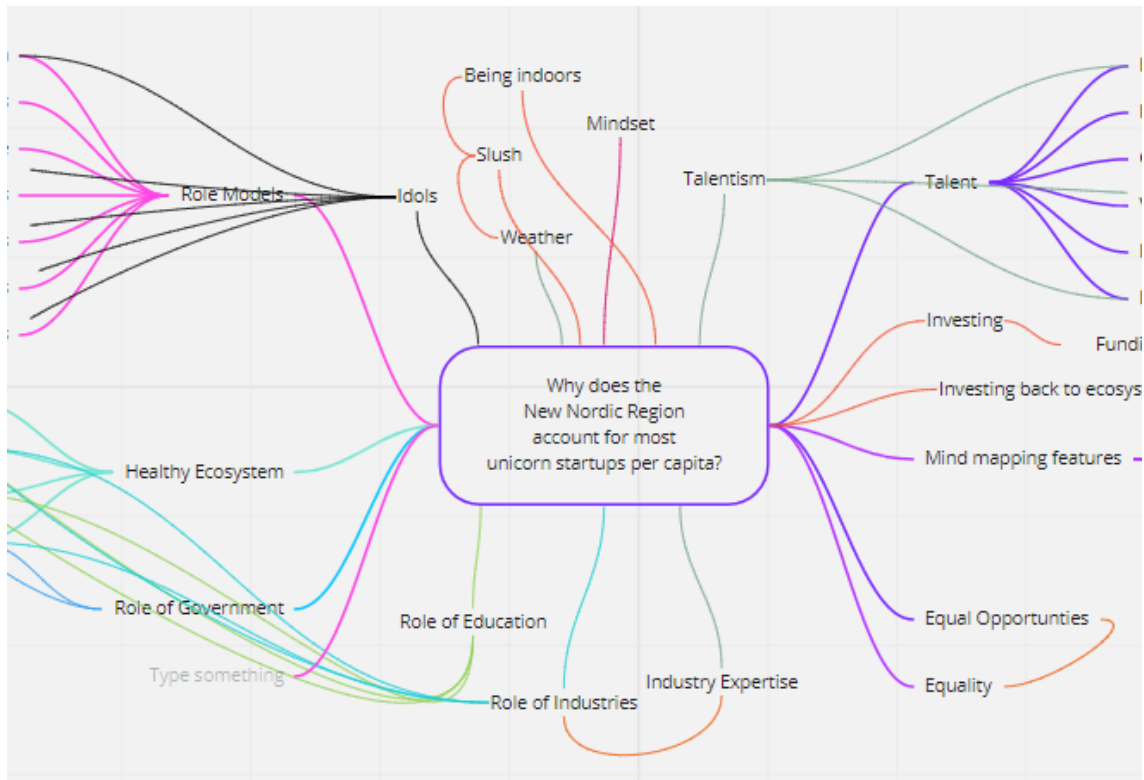
With grounded theory, the data analysis is an ongoing and constant process that builds from the bottom-up, so it starts with the first interview. Understanding that my research would follow this approach, I incorporated several measures to capture thoughts and insights throughout my research, so I would not lose any elements of analysis during the process. These included writing memos during interviews and transcribing interviews, creating a mind map, and coding the data in three phases.

To aid in the coding and data-mining process, all interviews were transcribed. I performed the transcriptions myself, because this allowed me to stay close to the data and analyze it as I proceeded with the research. During the transcription process, I kept track of my thoughts and any emerging themes through memos in order to help with the first phase of coding.

I followed the guidelines described in the research methodology chapter for data analysis in the following way:

### 1) Coding

During the transcription and coding processes, I created a mind map to capture keywords and phrases that appeared in the interviews in order to visually track core ideas that arose from the data. This provided a consistent visual space for me to evaluate my own thinking and the ideas I was gathering, rather than using a linear format for the memos. In the center of the map, I placed the concept of my research question and added core ideas and supporting words and phrases as they arose in the interviews, transcriptions, and data analysis.



From this mind map, I identified five key themes with connections between several of the clusters. For example, the idea of role models arose when the participants talked about both ecosystems and financing. The mind map gave me something to refer to throughout the coding and analysis process, so I could explore the ideas and concepts I thought were emerging, both in terms of what matched with what I saw in the mind map and what contradicted it. That said, I took care not to allow the mind map to drive my data analysis, with me simply using it as a tool to aid my thinking process.

## 2) Memoing

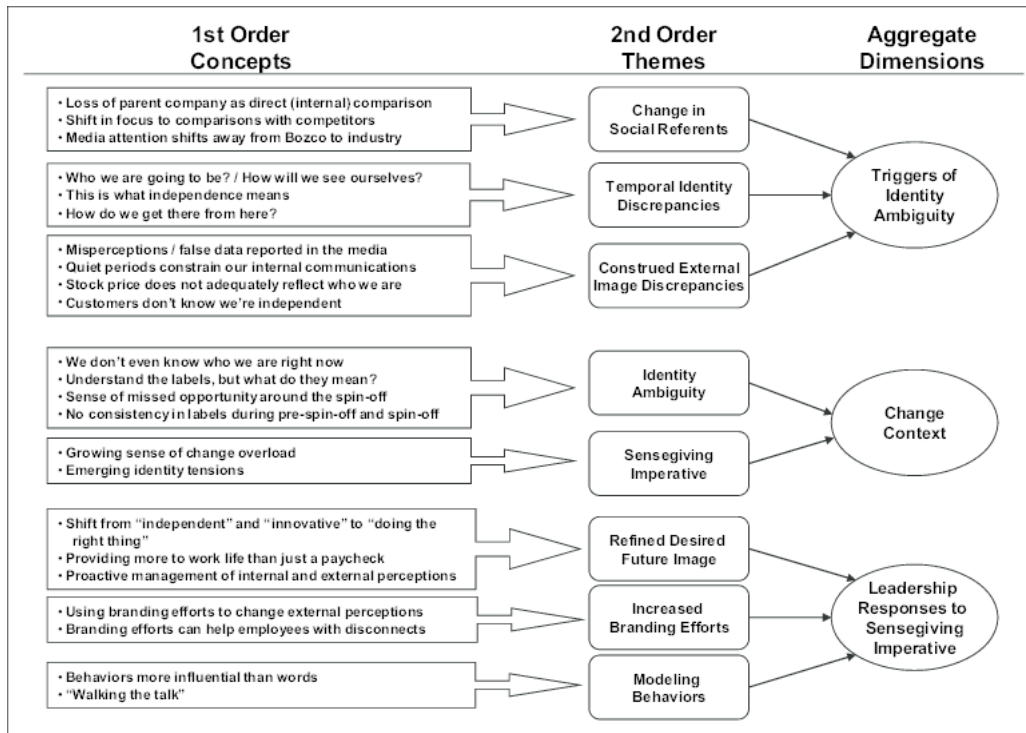
Writing memos is an important part of grounded theory research, because it provides a means for a researcher to capture immediate reactions, thoughts, and ideas as data collection takes place. Memos also provide the opportunity to do data comparison and initial data analysis that will inform subsequent interviews and data collection. With this in mind, I began writing memos after my initial interview. More specifically, I wrote memos following each interview and while transcribing the interviews. I made a list of key observations, ideas, questions, patterns, comparisons, key words and phrases, things I wanted to remember and

revisit, and any general feelings I was experiencing at the time. My memos mostly comprised handwritten notes that I could easily refer back to as needed. I used my memos to locate key ideas I had previously encountered or to revisit relevant questions throughout the data-analysis process. My memos helped me identify and isolate my personal feelings and potential bias during the data collection and analysis process.

### 3) Sorting and pattern matching

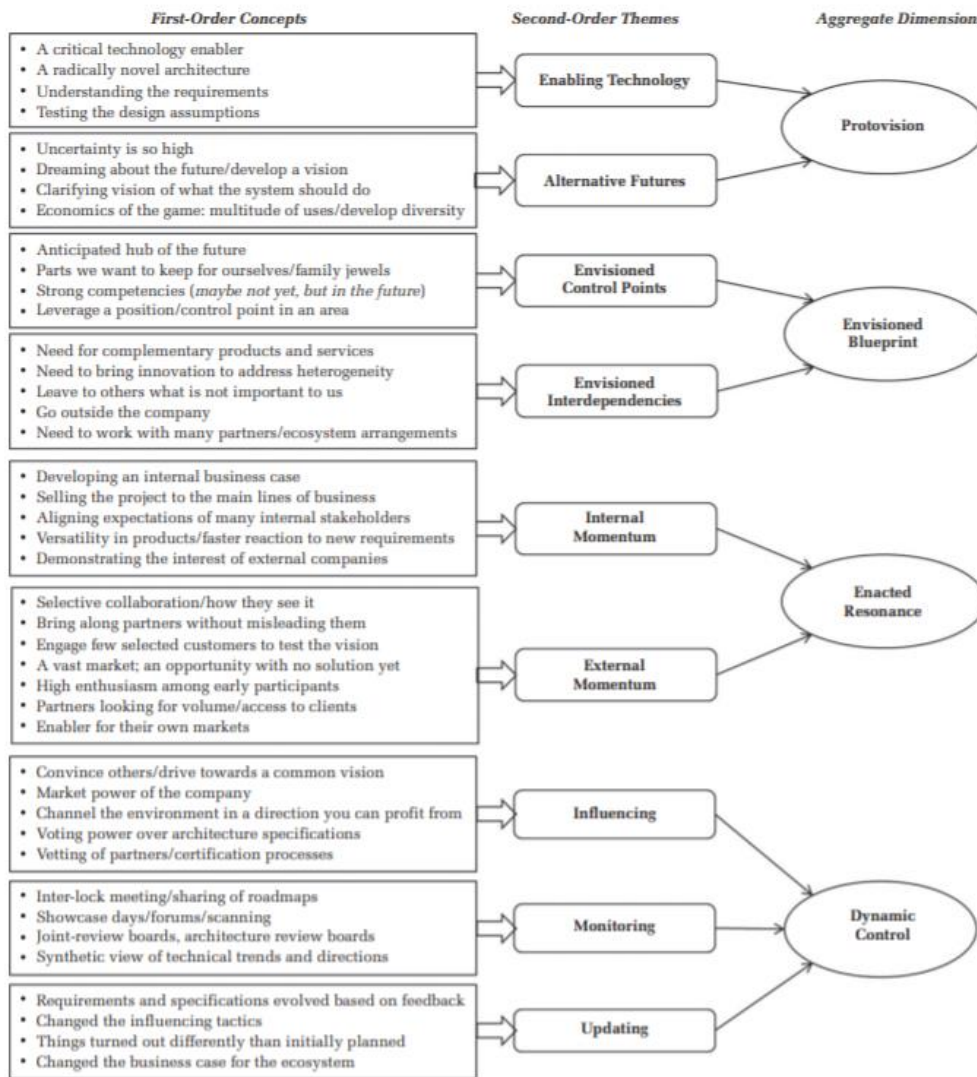
While experimenting with the data, it became clear that the following sorting and pattern matching strategies could be implemented: 1) organizing data into various arrays, 2) creating a matrix of categories and placing evidence within them, and 3) tabulating the frequency of various events. With this in mind, I looked into various methods for analyzing the data I had gathered, with me ultimately choosing the Gioia method (Corley & Gioia, 2013), which is related to grounded theory and the case study research methodology, to closely analyze the data to interpret and act upon it. The Gioia (2013) method employs an inductive approach toward qualitative data analysis. The first step in the analysis is to create first-order codes, followed by second-order codes and finally the aggregate dimensions.

I used a content-analysis strategy (Corley & Gioia, 2013) to develop the first-order codes, which I then processed into second-order codes and eventually into aggregate dimensions. I went back and forth between the interview transcripts to find certain themes for developing the aggregate dimensions.



**Figure 2** An illustration of the Gioia method; snapshot taken from Gioia et al. (2004, p. 21)

The same method has been used in a variety of research contexts, including for influential papers published in top journals (e.g., Dattée, Alexy, & Autio, 2018).



**Figure 3** An example use of the Gioia method in ecosystem research, as published in the *Academy of Management Journal* by Dattée, Alexy, and Autio (2018).

### 4.3 The Gioia Method

As mentioned above, I used the Gioia (2013) method to analyze the collected data. In the following, I provide details about the steps I took throughout this process.

#### First-order codes

To determine the reasons for the "whys" that the participants raised during the process, I analyzed each interview using the coding system described by Corley and Gioia (2013). To gain a comprehensive understanding of the interviewees'

perceptions, I began by thoroughly reading the interview transcripts and then listening to the audiovisual recordings.

This method gave me the impression that I was having a second conversation with the interviewees, thus helping me understand their actual responses and explanations better. The possibility to see the respondents' behaviors during the interviews also helped me better understand their feelings. I then used the mind map to create the first order codes, which resulted in a large number of primary codes indicating the interview content's relevance. To identify differences and similarities, I compared and contrasted all the first-order codes from the seven interviews. The first-order codes from the cross-interviews were then compiled, ensuring that all the first-order codes were consistent across all interviews.

### **Second-order codes and aggregate dimensions**

Gioia et al. (2013) proposed that the data be interpreted by grouping points into themes, so I organized the first-order codes into themes, and these themes, dubbed "second-order codes," were arranged into a more abstract level (Strauss & Corbin, 1998, cited in Heath, H., and Cowley, S., 2004). The XXX, YYY, ZZZ, and DDD codes are all second-order codes. Finally, I compared the themes before going back to the interview transcripts to look for more evidence to support each one (Gioia et al., 2013). Then, in the so-called "aggregate dimension," I grouped the topics at a more abstract level.

### **Integrating it all and writing up**

On finishing the data analysis, I reviewed the findings to see if there was a theoretical model that could explain them. This entailed reviewing all the data in a holistic manner and taking into account how the data had become more focused and meaningful as the coding process had progressed. All of the data resulted in a set of pieces that I had to put together like a jigsaw puzzle, albeit without a final picture to guide me through the process. I went back to my original research question to figure out the "picture" for this puzzle: why does the New Nordic region have the most unicorn start-ups per capita? By bringing my research

question forward again and looking for a process or set of actions, I was able to focus on how my data answered the "why" in the question. Using my research question as a reference "picture," I was able to organize the "puzzle pieces" into propositions.

## 5 FINDINGS

The focus of this grounded theory study was to understand why the New Nordic region accounted for so many unicorn startups per capita, so this chapter supplies the findings of this study. The following section reviews the data coding and analysis process, through which themes were generated that informed theory development. This chapter concludes with a theoretical proposition for why the New Nordic region accounts for the most unicorn startups per capita of any region.

### 5.1 Analysis Process

When conducting grounded theory research, the data analysis is a continuous process that begins with an initial interview. To gain as much insight as possible, I built my analysis process around four key elements: memoing, transcribing, mind mapping, and finally conducting the analysis using the Gioia (2013) method.

<p><b>Memos</b> Capture initial thoughts, ideas, and patterns from interviews.</p> <p>Identify needed modifications and questions for subsequent interviews.</p>	<p><b>Mind Map</b> Visually capture key words, phrases, and ideas.</p> <p>Become able to see clusters and alternative formats for organizing data.</p>	<p><b>Transcriptions</b> Capture new ideas as they emerge.</p> <p>Verify patterns, including changes, and understand them more deeply.</p>
<p><b>1st Order Concepts</b> Start crystallizing data into concepts that validate or negate ideas or patterns.</p>	<p><b>2nd Order Theming</b> Identify commonalities in initial concepts that help form-focused themes.</p>	<p><b>Aggregating Dimensions</b> Review concepts, themes, and data to identify theoretical concepts.</p>

Identify new data that fills gaps or generates new ideas or patterns.	Generate larger reasons leading to the big themes.	Theory development and validation.
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**Table 8 Overview of the data-analysis process**

While following the given structure, I chose to deviate from the recommended grounded theory research practice of coding each interview before moving on to the next (Charmaz, 2014). Indeed, because I needed to take time off work to conduct the interviews, I made the decision to group all of them within one month. Moreover, many of my interviews were scheduled for September 2021, when the participants would be most available, so I did not want to lose the opportunity to interview anyone who had expressed interest in participating in the study. Furthermore, due to the time it takes to transcribe and code an interview, I would not have been always able to complete the transcription and coding of one interview before conducting the next one. Indeed, some of my interviews took place on consecutive days or even on the same day, making transcription and coding clearly impossible between interviews.

As a result, after each interview, I wrote a memo to capture the key ideas and concepts, which I could then use to see if I needed to change or add questions for the next one. I also made a mind map to visually organize ideas and concepts in addition to the memos. As recommended by Charmaz, combining the memos and the mind map allowed me to spot patterns and ideas as they arose, allowing me to tailor subsequent interviews based on these findings (2014). I continued writing memos and adding to the mind map while transcribing the interviews. Finally, I used the Gioia (2013) method to conduct the qualitative data analysis, which included first-order concepts, second-order themes, and aggregating dimensions.

## 5.2 Empirical Findings

The findings for this study emerged in two phases: The first phase was a process of understanding WHY the New Nordic region accounts for the most unicorn start-ups per capita of any region, and this resulted from direct analysis of the responses to the research question. This gave rise to clear themes that accounted for the outcome. The second phase then identified the key themes that emerged from the data in addition to the analysis in the first phase. This phase sought deeper meanings within the data, thus allowing the theoretical model to emerge. The remainder of this chapter presents the details for each phase of deriving findings.

### Phase one:

- **Why does the New Nordic region account for the most unicorn startups per capita?**

I asked participants to answer the given research question in an open-ended manner at the start of each interview. The question was broad and open, so the participants were free to contribute whatever insights first came to mind. During the first interviews, it became clear that there was no single definitive answer to this question but rather a collection of multiple factors working in tandem.

*Let me start by stating; it's not one thing that leads to these results, but a combination of many things, working well together. (Carl, Rovio, September 2021)*

*Is it the ecosystem and how it has evolved, the role models, or a combination of these? I think it is many aspects together. People are getting experience, funding, investing back to the community, and amazing talent. It is definitely all these aspects coming together. (John, BOLT)*

*It's a very difficult question to answer. I think there is no one answer. There is a set of answers and probably different contexts justify different answers. (James, Northvolt)*

It was interesting to see the emergence of a similar pattern among respondents in how they answered the research question. Many of the interviews started by talking about an ecosystem and then digging deeper into themes.

These points marked the start of a pattern that emerged around the reasons behind the key research question for this study and the themes that the respondents considered vital. The first two interviews allowed me to create a basis for the emerging thematic areas. The two first interviews talked at length about different themes that emerged around the New Nordic ecosystem. In my memos for these interviews, I noted five key aspects that were reflected by both participants:

1. Ecosystem,
2. Financing,
3. Talent,
4. Equal opportunities or no hierarchies, and
5. Role models.

I noted these points as being important to look out for in subsequent interviews, specifically as to whether the points emerged, or if they did not, what emerged instead.

In the interview process, each participant provided three to five key themes throughout the interview. Common across the interviews were, such as a well-functioning support ecosystem, role models (such as Skype), and financing. In the graph below, you can see the major themes that emerged from the data.

<b>Participant</b>	<b>Themes</b>
John	Ecosystem Role models Financing Talent Equal opportunities
Carl	Healthy ecosystem Talent density Role models Financing Startup clusters
James	Entrepreneurial ecosystem Education Diversity and mindset Talent Financing
Henry	Ecosystem / Network Role models Talent / Culture Mindset Financing
Tom	Democratic ecosystem Idols Education Industry expertise and support
Robert	A close innovation ecosystem Education system creating talent Human capital Diversity and equal opportunities
Michael	Startup ecosystem Industry expertise

	Financing / Capital
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**Table 9 Themes emerging from the interviews**

The rest of the interviews built upon these themes as similar areas emerged automatically. The interviews brought additional insight into the themes, and building on these, I used the remaining interviews to seek additional data about the themes. This confirmed that all five themes held true across the totality of the data, and this allowed me to refine several of them. Table 9 shows the progression of the themes after refining them following each interview.

<b>After the first interview</b>	<b>After the second interview</b>	<b>After the fifth interview</b>	<b>After the final interview</b>
Ecosystem	Support ecosystem	Entrepreneurial ecosystem	Entrepreneurial ecosystem
Role models	Role models	Role models / Idols	Role models
Financing	Financing	Hands-on financing	Hands-on financing
Talent	Talent	Talent and education	Talent and education
Equal Opportunities	Equality	Equality	Equality

**Table 10 Theme evolution throughout the interviews**

By organizing the data about the themes, I could see that many of the themes, despite being worded differently, focused on the same broad area. Evaluating all of the interviews for similar sentiments resulted in a set of themes that spoke to a deeper meaning, thus laying the foundation for a theoretical model to emerge. Next, we will look more deeply at each of the themes and what attributes were highlighted within each of them.

## Phase 2

### 5.2.1 Themes

After the initial phase of the interview process, the emerging themes created a basis for better understanding the "Why?" of the matter by digging deeper into each of the themes. This allowed me to examine the data on a deeper level through the coded data, and I built upon and refined these themes with each phase of data coding.

#### 5.2.1.1 Entrepreneurial Ecosystem

My first interview was with John, and it laid the groundwork for all the subsequent interviews. In this interview, I was able to trial my starting set of questions, thus enabling me to determine necessary modifications and identify further questions to include in future interviews. More specifically, the focus was on learning from this first interview while avoiding common research biases.

Most of the interviewees started by talking about the importance of an ecosystem. This concept had a few different meanings for the participants, but it mostly referred to the importance of having a healthy entrepreneurial ecosystem also referred as a startup ecosystem:

*The New Nordic region has a healthy entrepreneurial ecosystem that allows new healthy things to emerge. Slush is a great example of this, whereas the ecosystem was healthy enough to provide scale. Slush became not only the biggest and best startup event on the earth but also proof of our ecosystem's capability to nurture growth. (Carl, Rovio)*

*I think that one important thing is to connect more experienced and more younger founders, bringing them together and sharing experiences, saying that the community is so small that everyone can invite everyone to lunch and really talk to each other. So it's all the founders basically on*

*the same level. So the more experienced ones are willing to give back to the community and so on. This ecosystem aspect, combined with the government aspect, is what makes the ground for success, at least in Estonia. (John, Bolt)*

The entrepreneurial ecosystem seemed to be the most cited area of unicorn success. What many highlighted, though, was that it had obviously not come about by itself but rather as the result of a big shift over the last 10 years. This was echoed by several the participants:

*There was a switch in the ecosystem of like when I was studying, people wanted to go to McKinsey, or people were studying industrial management with the goal to work in big companies. I think there was a kind of switch from 'do I want to work in a consultancy' and 'do I wanna do this kind long days working on slot machines or excel', switching to a mindset of having ownership of what I do, making an impact with doing and building something own. The ecosystem evolved a mindset where individuals stated, "I want to try something that I don't really care if I fail". I think the ecosystem has kind of done a good job in this. (Henry, Wolt)*

*And then the question is why is our ecosystem so good? I think it is not too big because otherwise we would lose that dynamic. We have the expertise, but also the openness and smallness of the ecosystem. That is something unique of our region. (Tom, Rovio)*

It is clear that the entrepreneurial ecosystem acts as the basis for entrepreneurial success, so little will happen without it being in place. With that said, the entrepreneurial ecosystem was the starting point for the remainder of the themes, and it was mostly followed by another big theme, namely role models. For many participants, Slush was a great example of young people getting to work hand-in-

hand with leading role models. 2021 put WOLT on the world map breathing exactly this air of unicorn creation:

*Slush was never intended to be a huge event. It was about creating gravity and a training platform. In this platform, young people get to work closely with role models and startups, learning by doing. After that, they go out there, follow the role models and start the best startups. A great example is WOLT, one of our unicorns that was born out of Slush.*  
(Carl, Rovio)

In addition to Slush, Sweden has played a vital role as an ecosystem role model.

*In the case of Sweden, I actually think that it's the startup ecosystem that matured to the point where there's capital, people and processes available to actually do this (unicorn) sort of thing. They have plenty of people also moving in for support attracted by the ecosystem, because it so strong at supporting the creation of new ventures.* (Michael, Aiven)

With these two examples in mind, the urgency of the ecosystem allowing a playground for role models became evident. Next, we will look more deeply on what significance to role models have on unicorn success.

#### 5.2.1.2 Role models

Role models were something that all the interviewees brought up as a reason for unicorn success. Role models can take multiple forms and provide an important asset for regional growth. John, Carl, and James all identified local role models whose active pursuits had contributed to further bigger successes:

*I think the Skype example was really important because it shows that the unicorns or people from our region can actually build global technology*

*products that are used by tens and hundreds of millions of people. So I think that kind creates inspiration or self-confidence on one side. On the other hand, the experience of actually building great products from the engineering side, scaling side product management, marketing, globalization, all of that led by someone knowledgeable gives an edge. (John, BOLT)*

*I think we can see clearly today what impact role models have had on the region. First, Finland had Rovio, which reached unicorn status and a bit more than one billion in valuation. Next, we saw Supercell, a similar gaming startup, becoming a decacorn valued over 10 billion. It is clear that this did not happen by mistake, but because we had role models showing it could be done. (Carl, Rovio)*

*The one normally cited role model is Skype, but Daniel Ek with Spotify is another one. There are a few stars. Right. Even in Sweden, in the entrepreneurial world, I think they are generally inspiring. But on the other hand, I think it is a relatively close circle of people who are already in entrepreneurship who actually discovered those stories. I mean, I did not have a clue about who Daniel Ek was when I started Northvolt. I then discovered, oh, there is a very interesting ecosystem of startups in Stockholm, although there is this guy, Daniel, like, who is a superstar. So I think it's not a necessary condition to have those superstars for the generation, but it definitely helps because it gives people a target of, OK, I want to be as successful as this guy, or I want to develop my company the way Spotify has done it. So it's more. It's more inspiration from a story rather than personality-driven, in my opinion. (James, Nortvolt)*

Role models clearly play a critical role in inspiring future founders by showing them what can be achieved. However, it is not enough for them to exist there as inaccessible figures but rather the polar opposite: These people are easy-to-reach,

normal human beings, thus allowing everyone to reach for success on an equal footing. Tom elaborated on this in the following way:

*For instance, ice hockey. If we wouldn't be successful in that, we wouldn't have too many participants in that particular sport. And the closer that I am at least to you, I think it attracts more, because I think it basically tells you that, OK, if that person can do it, I can do it. In a way, it's an idol, a superstar, but still a human. So you can relate to that. And if you can understand the path that they took, if that story is close to you, they are also there to guide you. (Tom, Rovio)*

Another important factor with role models was the participants' mentality toward the ecosystem. With this, the participants referred to founders who want to be active. Many of the founders had helped each other, and they had always received help from their role models when they asked for it. This non-hierarchical model seemed to have a lot of merit to it:

*It's not like a pure heart of gold, like giving back mentally, but it's more like, OK, I kind of have seen a couple of these growth stories. I know my way around the scene. So why not invest in some young companies, I have some money to play with, why not support them in their growth journey? (Henry, Wolt)*

*The ecosystem has allowed a great network between the young and old-the role models and the newcomers. We've always been very connected, world connected, and very well connected. This doesn't mean that you get funding, though. It means that you get the chance to be heard. And so what I think, we have these kind of role models who are there to support, but also trust the team and kind of make themselves available both in time and money. (Tom, Rovio)*

With this said, role models play a vital role, especially on the motivational side working as examples what can be achieved. While expertise is important, financial resources seemed to play an as important role. This emerged in all of the interviews as a vital theme and next we will look at financing as a mean to unicorn success.

### 5.2.1.3 Financing

The importance of financing became evident during the interviews, but what was surprising was the models of financing. It was not just the traditional investment methods being used but also the development of experience-based financing, where those within the region who had been successful started investing back into the ecosystem, thus creating a ripple effect and unicorn success:

*The success stories of the role models created hundreds of millions euros and then the founders started investing, and their initial goal was that they would like to do an investment once a week. And then government created their own like venture funds, which had to go invest with angel investors fifty-fifty. So that was pushing angels to really learn and then start investing because the government funds wouldn't invest alone. And now, because they have done a long enough time, you can start to see actually like the fruits coming out, like more and more scale. (John, Bolt)*

*So the Skype co-founders, the first step they did is that they started to reinvest back to the community, having even planned to do like literally 50-100 investments per year, which didn't go like that. But still these people stayed active, not just, you know, going away and buying some you know, boats and other things. But they immediately started to think what is happening next and started to invest back. Both time and money. (Robert, Pipedrive)*

*So one notion that I've seen a lot is that we see what are like idols. They're really actively hands-on working within the ecosystem. Many of them, for example, are looking out today, they actually focus a lot on funding back to the startup ecosystem, developing the ecosystem further. (Tom, Rovio)*

The region has also evolved in how it is able to invest, which was especially emphasized as the ease of starting up and being supported while doing it.

*So today we have plenty of VCs who are involved in the serious series around size tickets. So like. What that basically means that these days, it's much easier to actually set up a company based on an idea. You don't need to necessarily self bootstrap as far as you did in the past. This speeds things up, a lot. (Michael, Aiven)*

*The effect of points of exit can be tracked down that we literally have now approximately 40 to 50 new angel investors. These all investors join early stage start-ups and make it easier for the VCs to invest bigger ticket sizes. A clear effect of a smaller region such as the New Nordics. (Robert, Pipedrive)*

Investments clearly play an evident role in scaling a start-up to an unicorn in a short period of time, but money only gives you the opportunity to do things. Talent on the other hand is the resource that you can buy with money, but talent doesn't grow on trees. In the next segment we will look on what role talent and education plays for unicorn success.

#### 5.2.1.4 Talent and Education

The New Nordic educational system has played a vital role in creating the talent needed for new Unicorn companies. Robert explained this well summarizing it as human capital.

*I think that if you talk reaching unicorn success, you know, one of the key elements to have is always human capital. Our politics has focused on this and resulting in a strong education system, which is producing like great talent. (Robert, Pipedrive)*

The political system has seen for years that talent is educated towards the needs of the region to create so called industry expertise. The interviews highlighted how it is not a coincidence that we are good at tech (a requirement for unicorns), but a strategy implemented to foster right kind of talent.

*We have a democracy for how people can educate themselves. I think that that is one of the key factors there. But of course, it needs to be linked to a specific industry. And if you look at the industry from the industry perspective, we have a strong technical education background here. (Tom, Rovio)*

The New Nordic region is well known of its high level of education, but this alone doesn't produce the talent required for unicorns. It is a strong entrepreneurial focus and culture it breathes and develops.

*Talent has always been there, but these days, there's much more emphasis on entrepreneurship in any case in all the top tier universities in Finland. (Michael, Aiven)*

*The entrepreneurial culture is where you just have to learn to swim and figure it out and understand that this is on me and I'll just have to do my*

*best. No one is going to come and help me. I just have to own my area and figure it out. And when you learn that at a young age, relatively young as you're 20 something, it's a great basis for joining a startup and as a founder or in a very responsible role, because you've kind of learned to take the pressure off.* (Henry, Wolt)

The entrepreneurial culture fuels theory to practice. This results in more competence of building unicorns as it requires practical work or learning by doing. Obviously, education is very important, so entrepreneurs will inevitably want to set up and grow their companies where there is a good educational base. But, education is not the only way to foster talent. Role models create talent as well and play a vital role in creating new unicorns.

*But I basically say that like in the case of Finland and Unicorns, it was basically that engineering potential was freed after Nokia went down.* (Michael, Aiven)

*We had good luck that we hired many people from Skype and these people who really had worked in unicorn startups in the past. The people knew the drill, they had the competence and they understood the requirements of building a company like this.* (Robert, Pipedrive)

Talent is created through education and practical learning. The New Nordic region offers a model call talentism that allows everyone to have the same opportunities for education and opportunities regardless of their interests. This takes us to the last main theme, equality.

*Putting us putting the talent on the same line in a way, rather than the money. Now, that is like I think the notion there is that the normal model would look at the world, it's kind of like have that socialist or that communist look at life. But what I think the Nordic region, and what*

*you're pinpointing, is kind of like this talentless model. (Tom, Rovio)*

*You have to be, you have to have the skills to do it, and I think education is. Making sure that if you are really excited about something, like specific matter, you are able to educate yourself. And you are able to educate yourself. Without the stress that you have to take so long that you're going to pay for decades, and if you take that burden away. (Tom, Rovio)*

This takes us to the last theme, which is equality, the notion of equal opportunities for welfare, culture, education and work.

#### *5.2.1.5 Equality*

Equality was highlighted by each of the interviewees as one of the key themes to unicorn success. John highlighted that the region has a so called non-hierarchical model which means that people can be reached, whatever position they have in the society.

*But overall, again, having a small ecosystem, so that even if these guys are wealthy and doing well, whether they actually hang out in the same places, and then the city is so small that you can see them on the street, you can hang out with them at an event, you can chat with them, and so on. So, what I've heard is that being in Silicon Valley, that's much more structured, and it's impossible to meet Mark Zuckerberg or Jeff Bezos because of their security. And those similar founders in Estonia, are walking alone in the city or hanging out at start-up events. So, it's much more easy to actually meet with them because of an equal standpoint and no hierarchies. (John, Bolt)*

Furthermore, it is about the opportunities people get that affects how good talent we have to build new Unicorns. US and the New Nordics were often compared in

this manner, highlighting that it is not the amount of people that matters, but the amount of opportunities given.

*If you compare kind of like Silicon Valley, for example, New Nordics or the United States, even though you have a lot more people in the states, most of those people don't get the same kind of like high education as we're able to get here. And best we can see as many, like good founders or what I'm coming to is kind of like equal opportunities to foster these talents. (Michael, Aiven)*

*So vital part is that equality or equal opportunities of the region and aspirational like those from Finland and the Nordic countries that allow in an equal standpoint, everyone that you see that are affecting positively your growth story. It's really different here compared to the United States. (Rovio)*

The five main themes explain well what constructs a well-functioning ecosystem for creating unicorn companies, but some notions covered in the interviews were not a part of the five main themes. These were so called regional attributes consisting of elements that haven't been developed in other continents for one reason or another. Three regional attributes were highlighted frequently in the interviews and they were weather, industry expertise and mindset. In the last chapter of themes we will look at the regional attributes.

#### *5.2.1.6 Regional Attributes*

The research yielded a bunch of interesting themes regarding unicorn success. Many of them were in many way obvious and also well mapped in previous innovation ecosystem research. The novel contributions started to emerge in every step of the analysis whereas new reasons to success emerged. These attributes were named regional attributes as they only emerge in certain region because of geographical or historical reasons. The findings within these attributes are presented next.

## Weather

Many of the participants highlighted the weather as one of the reasons to the regions unicorn success. The weather in the New Nordic region is known as harsh, cold and dark forcing people to spend a lot time indoors. Instead of beaches, sun bathing and outdoor activities the talent here sit in front of a screen, which leads to more competence in technical skills which seemed to be vital for creating unicorns.

*And and this is again, a bit of talent, because that is like the funny story of our society, is that if you have relatively bad climate that we happen to have in Estonia, since relatively people are having the DNA that you need, you need to work harder. You not have like option to go to the beach and such things because it is raining or snowing and whatever bad stuff happening outside. This is perfect country to do program and build the company behind the computer in the room because nothing happened to actually think outside anyway. (Robert, Pipedrive)*

*But also, I honestly think that the weather might have an impact on that. Because I have to say that if I'm somewhere, somewhere very hot, I can't think unlike I don't have to do the same things as I would do here in the wintertime, if anything. Yeah, in a sense, I think that makes a lot of sense because we have more hours inside spent by the computer or by the TV or something like that, instead of, for example, on tourism at restaurants, which we see we are not that good at compared to that country. (Tom, Rovio)*

*Is it because of the long winters? It's very dark. That could be one of the reasons. But that's kind of like from the macro perspective, and then you need to drill down into the individuals that are able to kind of like visualize where the world is going. (Henry, Wolt)*

The urgency of bad weather created so called industry expertise in exactly those categories which are needed for creating unicorn companies. This expertise then

was supported by education, making us strong at the capabilities needed for unicorn companies.

### **Industry Expertise**

Industry expertise especially in technology has not come by itself. The participants highlighted how it is a unified effort of academia, the government and industries working together to create an environment to fuel it.

*I like so much activity regarding how you can educate your like how you can change education systems to produce more. Exactly the talent for the industry. Like Yoki School, we have this basically cooperation between government and intrapreneurs, which basically is like how we can fill the gap when we need thousands of engineers, how we can basically not rely only on the governmental or private universities, but have very practical ways how people can learn to that. (Robert, Pipedrive)*

History combined with education created a framework for us to be strong in technology. Many highlighted Skype and Nokia as examples whereas a specific industry expertise emerged.

*We have a democracy on how people can educate themselves. But of course, it needs to be linked to a specific industry. And if you look at the industry from the industry perspective, we have a strong technical background here. (Tom, Rovio)*

The industry expertise gives us the competence, but it according to the participants it is not the reason for new companies to emerge. This was the result of the last attribute, mindset, which has made the region hungry to startup.

## **Mindset**

Several of the participants talked about a change in the mindset during the last 10 years. The mindset of the people has changed towards an entrepreneurial mindset.

*The thing that's changed is the mindset of people. We have a so called entrepreneurial mindset that fosters divergent thinking, thinking outside of the box. (Michael, Aiven)*

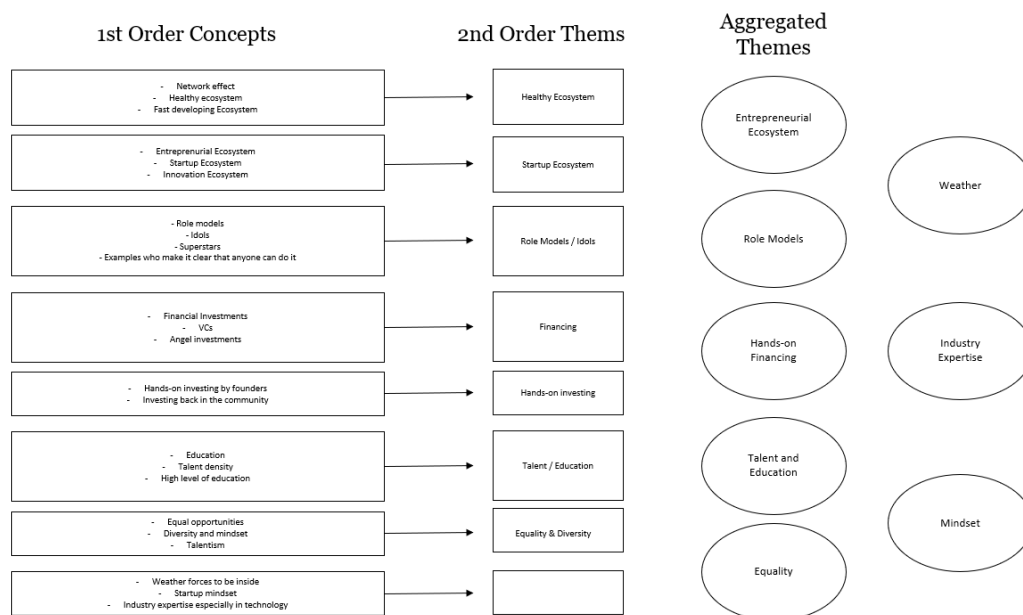
*Unicorn success is about getting all things right, and then you need to always, like, have a bit of luck and all of that. And luck is no coincidence, it is a result of the mindset that has developed during the past 10 years. A startup mindset where the young people are put in the charge, building, innovating and learning by doing. Just look at Slush and then Wolt as one great example. (Carl, Rovio)*

This mindset allows the people to realize that anyone could do it. The role models have paved the way for this and as Robert highlights, in a small region this kind of mindset easily becomes contagious and spreads like wild fire.

*For example, the Skype example or the up on how it's not affected region are by import heavily like this is also effects that you have small society. Basically, the small society basically helps heavily because like example one, one Unicorn effect has much bigger in the small country because you know, somebody from the company and other things and so on. And you start to like ask exactly, oh, I know this person. But here he was part of the reason why I can't do that. So, you know, basically the Skype story was that this is maybe the perfect example. It cultivated an entrepreneurial mindset, making entrepreneurs superstars. (Robert, PipeDrive)*

### 5.3 Summary of the Empirical findings

Following the Gioia (2013) method, the data that was gathered through the interviews (first-order concepts) were transformed into second-order themes and then into aggregating dimensions. A summary of these dimensions, and the way in which I arrived at them, followed the Gioia method and an illustrative example of its use (see Dattée, Alexy, & Autio, 2018) is presented below.



**Table 11** Aggregated themes utilizing Gioia (2013) method.

### Verified themes with a mind map

I used the mind map in conjunction with my transcriptions and coding to visually analyze the data throughout the analysis. I was able to see where ideas and concepts were stronger or had more substance, all thanks to the mind map. When more than one participant mentioned the same idea, or when a participant added more depth to an already identified idea, I considered it stronger. The mind map also allowed me to visualize links between the words and phrases within a single concept.

### Focused coding using the five central themes

Throughout the coding process, I tried to remember Gioia's (2013) structure. The data coding was divided into three stages, namely to derive first-order concepts, second-order themes, and aggregating dimensions. Details about how the coding was conducted were given in Chapter 3. During the open coding of the interviews, I identified commonalities and patterns in the data in the form of key words and phrases used by the participants. After I had coded each of the seven interviews, I reviewed all the interviews and codes holistically, and I identified one overarching theme, four key themes, and two regional themes that the participants had mentioned as elements for success:

### **Overarching theme**

1. Entrepreneurial Ecosystem

### **Main themes**

1. Role models
2. Hands-on Financing
3. Talent and Education
4. Equality

### **Regional Attributes**

1. Weather
2. Industry Expertise
3. Mindset

As evidenced by these eight themes, the participants not only highlighted the fact that it was not one factor at play but rather a combination of many factors—they also suggested steps and considerations to explain their unicorn successes, their individual learnings, and insights that had influenced their success. Moreover, within the successes, the participants provided their understandings of what makes a region good at fostering such companies. Most of the themes became evident early on, and I anticipated they would turn out to be core to the data because they were highlighted themes that could be clearly seen in innovative

ecosystems. Some of the themes were unanticipated, however, and they were not expected to play such a central role across all the interviews, such as the importance of role models.

The analysis of the data resulted in a set of eight themes that portrayed a complex model of an emergent unicorn ecosystem model, one that involved a variety of different elements that I was familiar with from ecosystem research. Distilling the data further generated a clear relational approach about how these different themes were interlinked. Ecosystem stakeholders will be better able to connect the various themes and bring them into alignment as a result of this understanding. The themes also suggest that there is a collaboration in which the various players seek to serve as supporters of a platform that facilitates the processes within the ecosystem rather than as dictators issuing orders.

## 6 DISCUSSION

There are a variety of factors that contribute to unicorn success in the New Nordic context, and the world is understandably eager to learn what these factors are. Meeting this desire will require the focus to shift from macro-level and single-case studies to deeper qualitative comparative research aimed at understanding the "Why?" behind the "What?" and the "How?" Is there something unique about this region that is not immediately obvious, and if so, what makes the New Nordic entrepreneurial ecosystem so unique that it can nurture so many unicorns per capita?

The New Nordic region is punching well above its weight when it comes to generating unicorn startups, despite being tucked away in the farthest corner of Europe with less than 30 million inhabitants. The region has already raised more than a billion in venture capital funds in the first half of 2021, with unicorn companies like Aiven, Wolt, BOLT, and Pipedrive leading the way. Skype, King, Rovio, Unity, Just Eat, Klarna, Trustpilot, and Supercell are just some of the other notable New Nordic unicorn startups.

At first glance, one might think that the Nordic countries' economic, social, and democratic model, which typically has high tax rates to fund welfare assistance to citizens in need, would discourage entrepreneurship by making it a risky venture. After all, in a society with a strong economic safety net, the need for personal financial success is somewhat diminished, but the New Nordic region debunks the myth that necessity is the mother of invention, at least in this context.

In reality, however, the corporate tax rates of the New Nordic countries are comparable to other European countries, and some of these countries, such as Denmark, have a labor market that allows for easy layoffs. That is not to say that the New Nordic region's entrepreneurs are not confronted by a legislative environment that heavily taxes profits and capital gains, but this may be partially offset by the region's reputation for being one of the least corrupt places in the world and having effective governance structures that include a highly digitized public sector. Furthermore, the region's population has a high level of digital

literacy. Indeed, Finland was the first country in the world to declare broadband access to be a legal right in 2010.

Without a doubt, the high level of education also contributes to the region's ability to create innovation. (The Scandinavians have a special word for this, "skaberkraft," which means "power to create.") Not only is education free, but residents also receive a stipend while pursuing higher education. This system has led to the region having one of the highest levels of general education in the world, thus providing entrepreneurs with a large pool of qualified labor in most fields.

Aside from having a generally high educational level, the Nordics also have a unique educational style that emphasizes problem-solving and critical thinking. Unlike education that relies on the ability to memorize facts, this approach to education equips entrepreneurs with employees who are accustomed to questioning the status quo and coming up with innovative solutions. A unicorn start-up's capacity to learn and improve over time is critical, especially in the early stages when pivoting and adjusting are essential for survival. This, combined with low power indexes, results in a culture of flat hierarchies, where all employees, both junior and senior, contribute to the innovation process with ideas, objections, and concerns.

This flat management structure combines with high salaries and a good work-life balance. Despite the long winters of the New Nordic region, this makes it an appealing place for international talent to relocate to. The region particularly appeals to talented 30-somethings with families who are tired of the rat race and urban congestion in cities such as London and New York, preferring instead the high-quality childcare, schooling, and family focus of the New Nordics. (Maternity leave, for example, is typically 9-12 months.) The smallness of the region's capitals emphasizes the difference in lifestyle, such that when all five capitals are added together, the population would equal that of Los Angeles, Cape Town, or Busan. Short and pleasant commutes (which many people do cycling) and a sense of personal space and greenery are a further two advantages of this inherent smallness.

The New Nordic population of 30 million people is spread over eight countries (i.e., Denmark, Norway, Sweden, Finland, Iceland, Estonia, Latvia, and Lithuania), and as each has its own language, it compels residents to become fluent in English and other languages in order to communicate effectively. Indeed, almost every citizen speaks at least two languages and some speak many more. It also forces fledgling businesses to be "born-global," because their home markets are insufficient to achieve significant success. As a result, many companies, including many from outside the region, use these small countries with their homogeneous populations as an experimental lab, a place to test new products and concepts at a low cost before launching them to larger markets, such as the United Kingdom, the United States, and Germany.

The region has a high level of equality compared to other countries, which allows startups to fully benefit from the diverse talent of various sociodemographic groups, talent that would be inevitably underutilized in countries with high levels of inequality.

In recent years, the region has topped the United Nations Sustainable Development Solutions Network's global happiness rankings (in 2018, the top four were Finland, Norway, Denmark, and Iceland), which liberates the population from having to worry about basic human conditions, such as by providing free healthcare and support through unemployment, thus allowing them to focus on channeling their energy into more productive endeavors, such as being productive at work and sometimes starting their own businesses.

### **6.1 Theoretical Contribution**

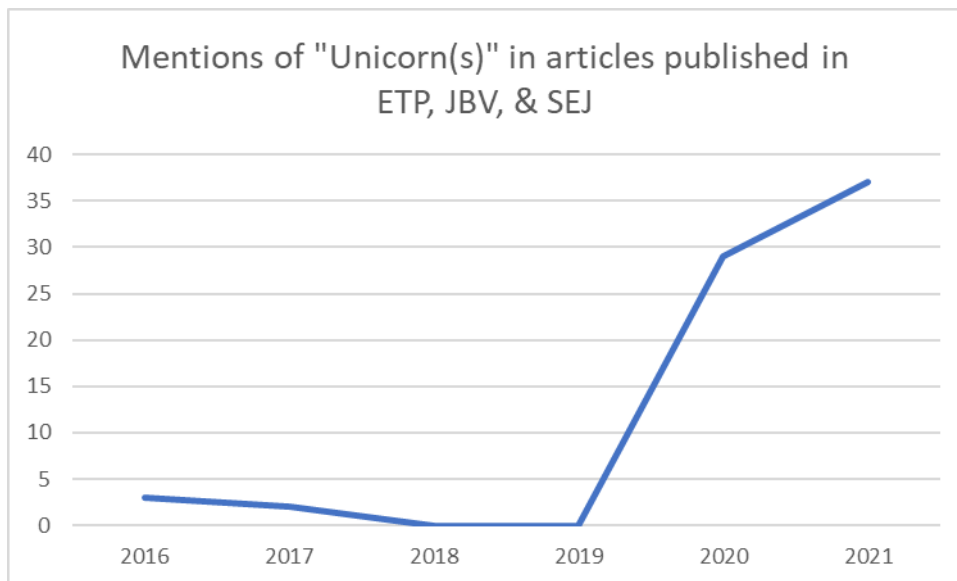
As explained by Daft (1995), "Theory need not be formal or complex - theory should simply explain why. Theory provides the story that gives data meaning" (p.166). The measurement of variables, procedures for data collection, and techniques for data analysis are important parts of the research process, but they are not sufficient in themselves to deliver genuine insight. The purpose of this part of my thesis is to match my data with existing academic knowledge (i.e.,

theories) in order to further develop their propositions and contribute to their meaningfulness.

I will begin this ambitious matching process by discussing the existing theories and metrics used to describe entrepreneurial success in general but particularly for the emergent role of unicorns in today's economic, social, and cultural dimensions of modern society.

### **6.1.1 Current perceptions of unicorns in academic research**

I reviewed articles in the top-three entrepreneurship journals that cover the topic of unicorns, and this showed how the word Unicorn has witnessed tremendous (in percentage terms) growth in recent years.



**Figure 4** Mentions of “Unicorn(s)” summarized by author (2021).

Scholars have identified this problem, claiming that research has focused on a few exceptional cases, which are grouped under the Silicon Valley model of entrepreneurship, while ignoring other "less successful" ventures, as has the general public.

The concentration of academic research on the negative aspects related to unicorns (e.g., the Silicon Valley syndrome, see Kwon & Sorenson, 2021) is certainly an important issue. However, considering how unicorns have popularized entrepreneurship and presented founders as role models for younger generations, the degree of negativity surrounding this concept in the academic literature is surprising.

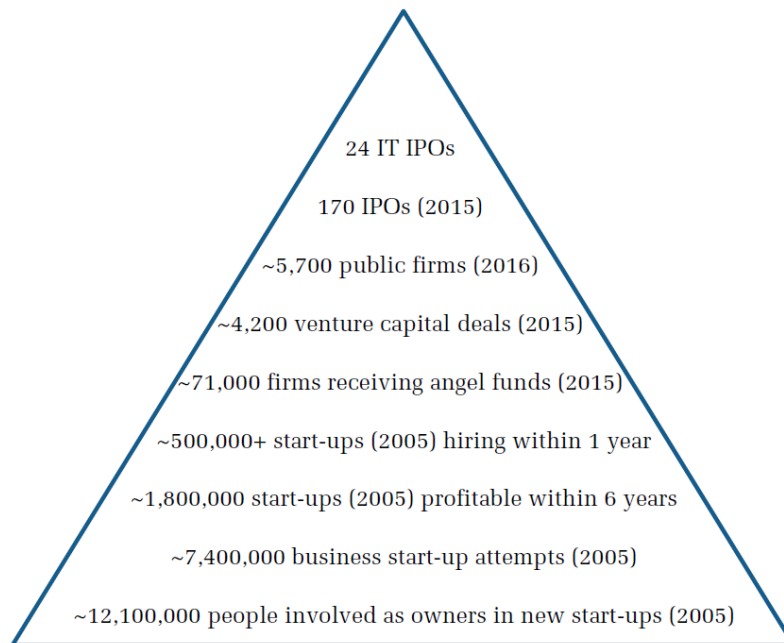
Surprisingly, the analysis of the context for the use of the word "unicorns" revealed it was rather negative. Scholars predominantly criticize the overemphasis of modern research and the general media on this particular topic while forgetting that most start-up ventures will never make it anywhere near unicorn status.

My qualitative analysis of the topics describing unicorn research in these journals provided me with a dolorous insight: The tone used when discussing unicorns is predominantly a very negative one. For example, scholars like Aldrich and Ruef (2018) and Welter et al. (2017) argue that entrepreneurship research has in recent years overly concentrated on "unicorns" and other companies with venture capital investment, despite these being extremely rare. The scholars add that much of the academic research continues to be on a highly skewed quest to develop our understanding of entrepreneurship by studying a tiny group of outliers while ignoring the vast bulk and diversity of what we could label "everyday" entrepreneurship.

Indeed, when one considers the common metrics of success<sup>3</sup> used in entrepreneurship research, there is no difference between unicorns and "everyday" entrepreneurship. Describing this metric, Davidsson (2015) elaborated on the majority of startup ventures that have the biggest input on economic development and employment in many modern nations.

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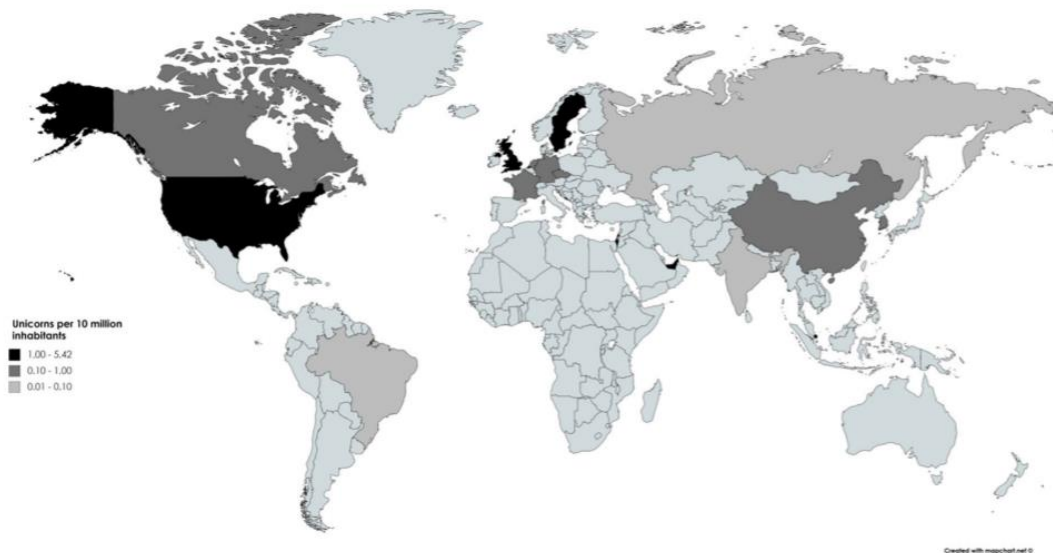
<sup>3</sup> Hannan and Freeman (1977) argued that the only valid criterion for organizational success was survival. Describing entrepreneurial ventures, Davidsson (2015) used the same, slightly refined definition, stating that "by success we mean the establishment of a new, viable economic activity." (p. XX).



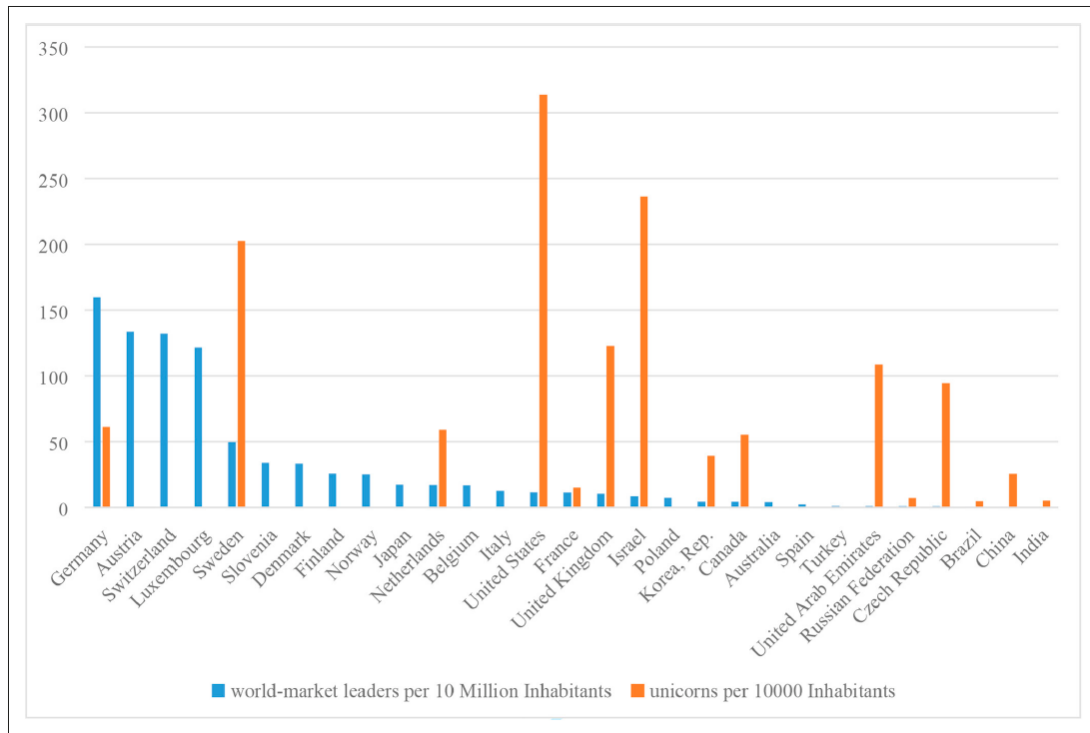
**Figure 5** Screenshot of businesses created compared to unicorns, Alrdich et.al. (2018)

In addition to the "everyday" entrepreneurship, there is still only a handful of growth-oriented ventures that can hope to become "unicorns." Rosen's (1981) "superstar" theory suggests that comparisons of mean earnings between self-employment and paid employment are strongly influenced by a handful of high-paid entrepreneurial role models (i.e., unicorn founders). These superstar ventures are of interest to researchers in many fields and policymakers, and they have unsurprisingly captured the attention of the popular media and the general public in many countries. Whether viewed as heroes or villains, the founders of such firms become superstars, and entrepreneurship groupies obsess over their every action or speech. As a result of this tendency, entrepreneurship is now viewed in the same light as the hip-hop movement in the United States during the 1970s and 1980s. Numerous young individuals aspire to be entrepreneurs and look up to the industry's many celebrities. Due to the aforementioned factors, the spectacular success stories of a relatively limited number of unicorns are considerably simpler to market to the general public than "everyday" business.

The unicorns have emerged so rapidly in the New Nordic countries (e.g., Finland and Estonia) that even the latest updates (see below) are unable to capture the current status. This lack of updated information is driven by the negativity associated with unicorns, which is entirely based on examples from Silicon Valley! But what if the New Nordics' unicorn model is different to Silicon Valley's? What elements are contributing to such rapid growth? In other words, *why* does the New Nordic region account for the highest number of unicorn start-ups per capita?



**Figure 6** The prevalence of Unicorns around the globe. Original source: Stam and Saberi (2017).



**Figure 7** Geographical distribution of niche and scale economies. Screenshot from Audretsch et.al., (2021), p. 1280.

Having realized the lack of up-to-date research findings for unicorns, their emergence, and support systems, as well as the absence of any information related to these issues in the New Nordic context, I paused to consider all of the findings, the codes, and the central themes, in order to piece together what they all meant. As I pondered all of these details, I realized that I needed to return to my original research question: Why does the New Nordic region have the highest per capita number of unicorn startups? The question's usage of the word "why" emphasized that the answer should include some form of explanatory model.

In addition, I considered why I became interested in this topic in the first place, and I realized that I was looking for a "model" to facilitate entrepreneurial success, which I define here as a scaling up to unicorn level rather than mere survival. I was curious as to why this region excels at nurturing so many unicorn

startups per capita (i.e., efficiency) and whether its model could be replicated or even improved upon.

On being able to only find a few empirical aspects connected to unicorns, none of which provided an answer to my research question, I decided to check another literature stream, namely the research on ecosystems. Our essential component was cited by every unicorn founder I met, according to the empirical results of this study.

Surprisingly, the existing ecosystem research provided me with a very limited connection between the topics of ecosystems and unicorns. The metrics of ecosystem research did, however, provide me with many insights about the success, in terms of survival, of new start-ups, but there was very limited information about what it takes to progress from survival to becoming a unicorn, at least outside the Silicon Valley context (Civera et al., 2019; Dilli et al., 2018; Neumeyer & Santos, 2018; Neumeyer et al., 2019; Hechavarría & Ingram, 2019; Simmons et al., 2019; Sperber & Linder, 2019). For example, the paper of Autio et al. (2018) provides an insightful overview of structures that specialize in the facilitation and cultivation of early-stage startups. However, although they distinguish between "stand-up," "start-up," and "scale-up" activities in entrepreneurial ecosystems, little light is shed upon the structural framework for the factors influencing specific activities that contribute to progressing start-ups into unicorns, nor do they cover the specific geographic area I am interested in. Similarly, the elaboration of Sussan and Acs (2017) on entrepreneurial ecosystems provides the reader with a deeper understanding of the interconnections between the digital and entrepreneurial ecosystems, but leaves its description of the emerged framework at the macro-level of abstraction without detailing the differences between nurturing start-ups and enhancing scale-ups (see Figure 9).

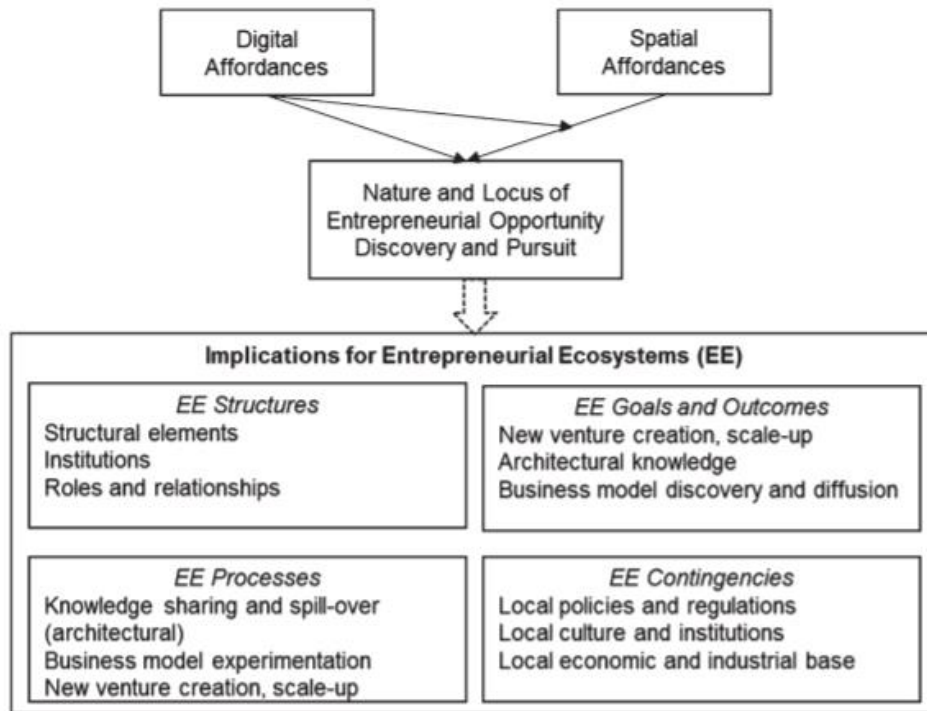


Figure 8 Structural framework of entrepreneurial ecosystems. Screenshot from Autio et al. (2018, p. 83).

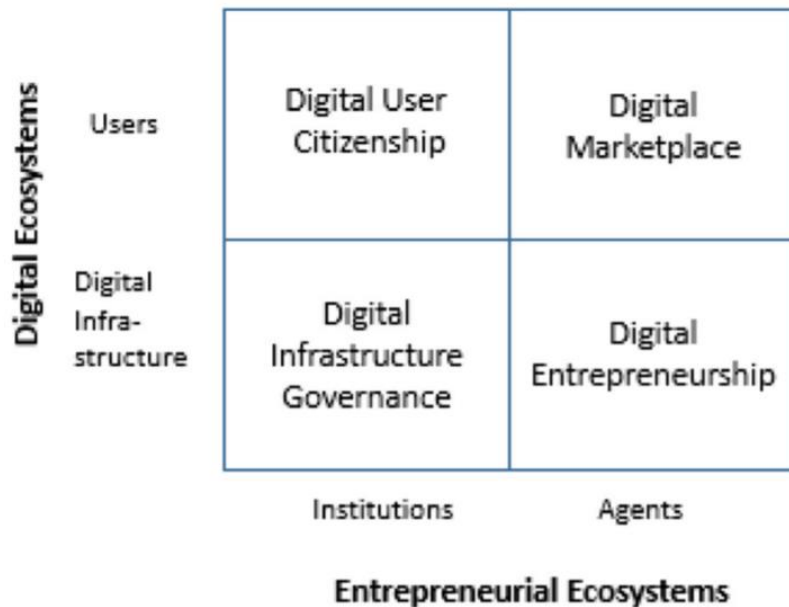
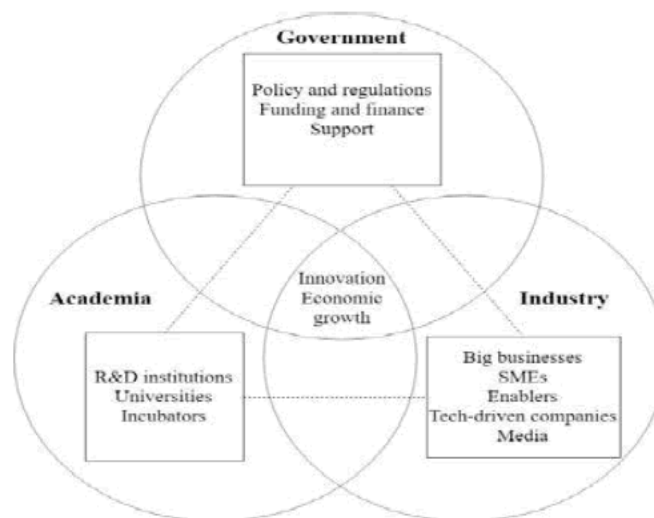


Figure 9 Conceptual framework of the digital entrepreneurship ecosystem. Screenshot from Sussan and Acs (2017, p. 63)

I did not give up on my search for theories and frameworks that could provide me with the possibility to connect my data with existing studies in the areas of ecosystem research and general entrepreneurship research. The Triple Helix Model (Aljarwan, et.al., 2019) and Spigel’s (2015) model for a relational approach to the entrepreneurial ecosystem reflected my empirical findings, and when combined, they served as a fertile ground for matching my empirical findings with existing frameworks in order to update and expand upon them, thus providing the academic audience with a story that would give meaning to the data! In the following, I elaborate in more detail on these two models (i.e., Triple Helix & the Relational Organization of Entrepreneurial Ecosystems) in order to then develop them further into an emergent New Nordic unicorn ecosystem model.

### **6.1.2 The theory-development process**

The Triple Helix Model represents a coordinated effort between the scholarly world (i.e., academia–industry–government) and the triangular informational approach. It has been embraced to clarify the related elements and legitimize the interlinked relations of the community-oriented stakeholders (Lindberg, 2012). Furthermore, it explains the interactions and flows between the three key players in the National Innovation System (NIS)—namely the government, industry, and academia—as shown in Figure 11 (Mezher et al., 2008; Acs et al., 2018).



**Figure 10** The Triple Helix Model in National Innovation Systems. Screenshot from Aljarwan, et.al., (2019)

This model plays a significant role in the economic and technological development of an entrepreneurial ecosystem. The government is the primary source of funding and regulation and contributes to the science and technology system. It also plays a significant role in setting policies, regulating social and economic mechanisms, and driving both academia and industry through funding and other support mechanisms (Ranga & Etzkowitz, 2013). The main focus of industry is profit and R&D commercialization, and it is an essential player in national economic growth by driving the market and GDP growth (Mezher et al., 2018). Academia, meanwhile, is a hub for research and development and a catalyst for developing human capital. The quality of academia and the educational system is significant in the equation, because a robust educational system can lead to an effective entrepreneurial system (Al-Abd & Mezher, 2012).

A clear understanding of this helix can help identify gaps and opportunities in the entrepreneurial ecosystem and the larger economy (OECD, 1997). It helps to determine the different players, as well as their roles and their performances, thus pinpointing where the gaps lie. Moreover, the helix promotes the hybridization of elements from academia, industry, and government to produce new frameworks, institutions, and formats (Ranga & Etzkowitz, 2013).

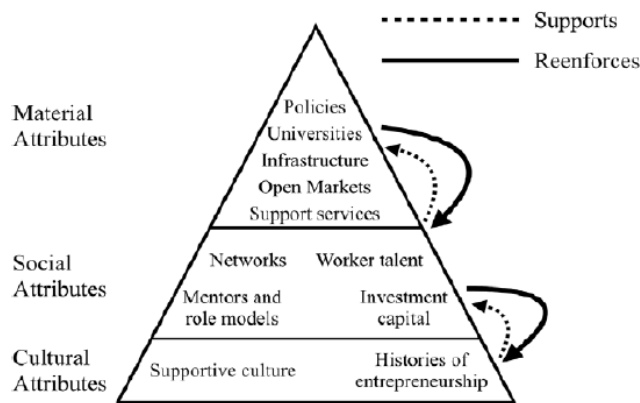
The Triple Helix Model represents the overarching relations that foster a successful entrepreneurial ecosystem, something that all the participants in this study cited this as one of the most important contributing factors to unicorn startup success. The model, on the other hand, ignores all relationship activities including role models, talent, and culture.

To understand the relational model better, I undertook some further research about relational entrepreneurial ecosystems. There are multiple relational ecosystem models, so I leveraged a comparison of entrepreneurial ecosystems that has been provided by Aljarwan et al. (2019). This is presented below.

Model	Strength	Weakness
WEF	Provides the level of importance for each ecosystem element based on global surveys  Provides sub-elements	Does not consider the relations between the elements
BEEP	Simple, direct, and provides sub-elements	Assumes all ecosystem elements are of equal importance  Does not consider the relations between the elements
Spiegel & Stam	Considers the relations between the element categories	Assumes all ecosystem elements are of equal importance

**Table 12** Strengths and weaknesses of different ecosystem models framed by Aljarwan et.al., (2019).

Based on the table above, I identified the Spiegel's model for a relational approach to the entrepreneurial ecosystem (see Figure 5) as the most suitable fit for further expanding my theoretical framework.



**Figure 11** Spiegel's (2015) model for a relational approach to the entrepreneurial ecosystem

This model suggests that entrepreneurial ecosystems can have multiple possible configurations. Ecosystems are made up of many overlapping sets of features and

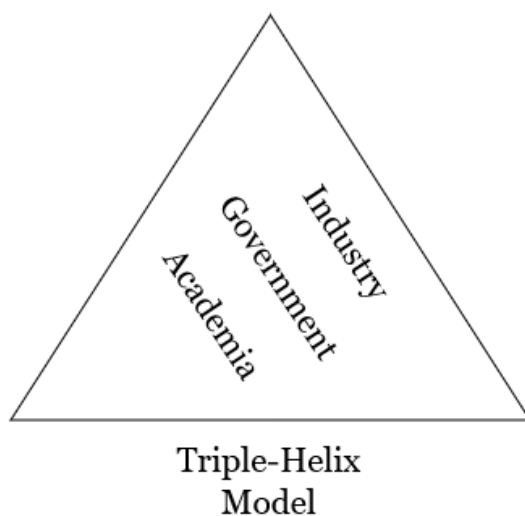
institutions that foster entrepreneurship and provide essential resources for emerging businesses as they grow and change. The qualities of an ecosystem are perpetuated and reproduced by their interactions with other attributes. The interplay between a favorable entrepreneurial culture, networks of entrepreneurs, workers, and investors, and effective public programs and organizations happens in ecosystems with dense linkages between qualities. One feature, such as a huge local market that provides several opportunities for entrepreneurs to exploit before developing and financially exiting, drives the creation of the other traits in sparser ecosystems. The study of ecosystems should therefore focus on the inputs, such as the localized cultural, social, and material attributes that support entrepreneurial activity and the ways in which these attributes can interact and reproduce the overall ecosystem, rather than the outcomes (i.e., the rate of entrepreneurship) (Spigel, 2017).

### ***6.1.3 The emergent New Nordic unicorn ecosystem model***

Having reviewed and analyzed the abovementioned two models, I again returned to my empirical findings and examined the five key themes that emerged from them. When analyzed together, three distinct sets of interactions can be seen. Initially, the data presented these two sets of interactions as operating closely together. In the interviews, the participants would often describe the process as a sum of many things all working perfectly together. As the interviews progressed and I prompted the participants to tell me more about the themes, they talked in more depth about how they had to be aligned, such that many themes emerged from, or were contained within, another theme.

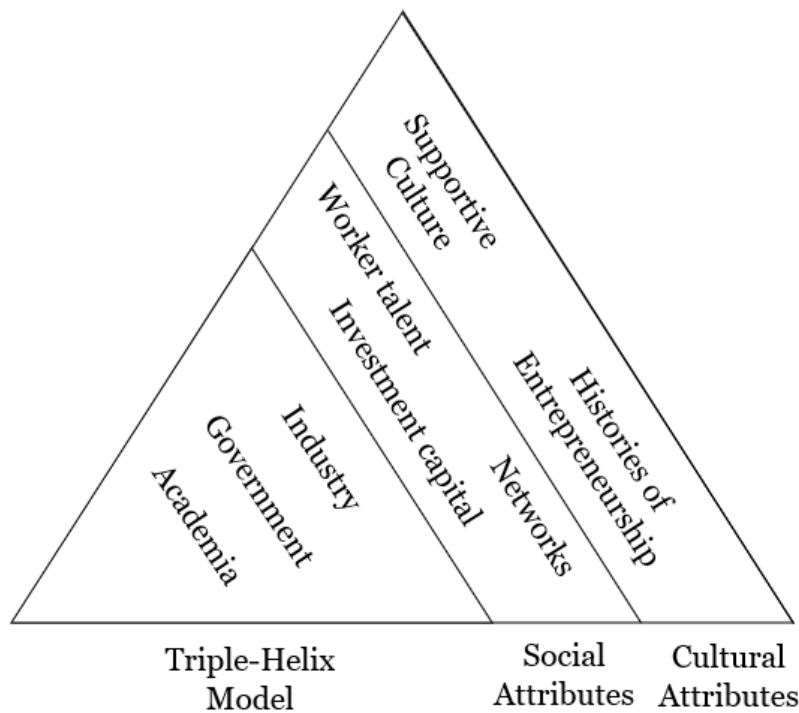
The first such interaction was reflected in the importance of a healthy innovation ecosystem, because this is a base requirement for everything else to work. As noted above, the innovation ecosystem follows a defined process in the Triple Helix Model. The second set of interactions represents the relational activities and themes that occur around the innovation ecosystem. These relational interactions include activities that are not represented in the Triple Helix Model.

There are various categories of attributes that constitute an ecosystem. This establishes a foundation for future research techniques aimed at analyzing and comparing entrepreneurial ecosystems in order to expose the many ways in which they develop, change through time, and influence the entrepreneurship process. This allows for a broader view of entrepreneurial ecosystems, one that recognizes that these characteristics can be set in a variety of ways.



**Figure 12**      **The Triple Helix model**

Next, the importance of relationships between different attributes demonstrates that new material attributes—such as entrepreneurial support organizations, state-financed start-up investment schemes, or new university technology- and knowledge-transfer programs—are unlikely to succeed if they are not underpinned by complementary social and cultural attributes. Rather than expecting these new programs to establish entrepreneurial cultures and networks, regional entrepreneurial policy should focus on building underlying support for them. The study of entrepreneurial ecosystems and the broader geography of entrepreneurship benefits from this relational perspective of cultural, social, and material qualities.

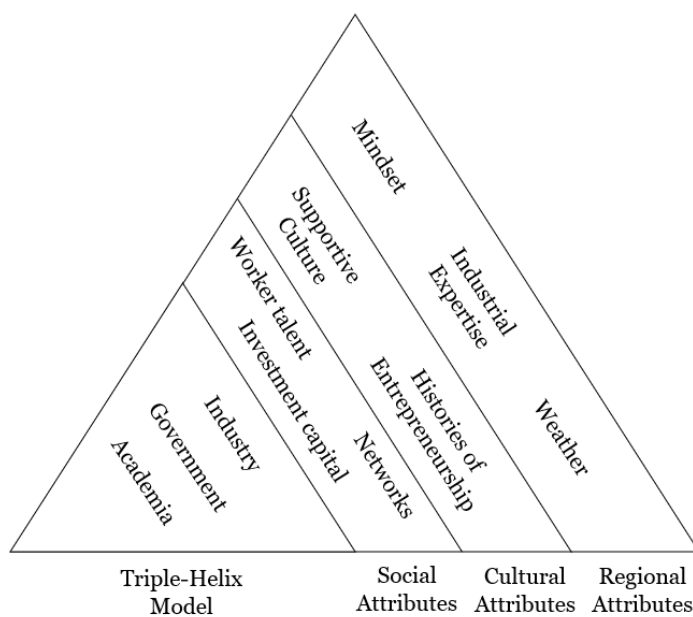


**Figure 13** The Triple Helix Model combined with Spigel's model for a relational approach to the entrepreneurial ecosystem

When the various themes are combined, however, something new emerges. An interplay between the innovation ecosystem and the themes can be seen, pointing to how the two interactional aspects could be interconnected rather than operating independently of one another. Thus, we could posit that the innovation ecosystem and the supporting themes operate as a unified aspect. These have not considered together but rather as separate phenomena in previous research.

Finally, the combination of these two theories clearly covers all the given themes, but it remains blind to three regional themes that were identified in the majority of interviews, namely industry expertise, weather, and mindset. Because unicorn start-ups require technology to rapidly scale up, high levels of technology expertise and industry knowledge are needed, something that the New Nordic region provides. Furthermore, working with tech requires spending a lot of time with computers, thus linking to the work of Sussan and Acs (2017) on building

digital ecosystems. Next, the weather in the New Nordics tends to be dark, cold, rainy, and generally harsh, and because of this, many interviewees stated that it is preferable to stay inside and continue working, resulting in more hours being spent building the necessary tech. Finally, there is the mindset. These three notions in mind can be added to the combination of the Triple Helix model and Spiegel's model for a relational approach to entrepreneurial ecosystems to create the proposed unicorn ecosystem model.



**Figure 14 The Relational Unicorn Ecosystem Model**

What makes this model especially interesting is that it can be measured in future through a standardized X and Y chart. On the vertical side we have value, and on the horizontal side, we have the number of well-functioning themes. What this allows us to do is analyze and calculate a valuation of the effect of given themes on success. Further research could create a framework for quantitatively analyzing whether this relation holds true or not.

## **6.2 Implications**

This study has several practical implications for academia, government, and industry. First, the study provides insights into processes that founders can employ when building their venture ground up. The relational unicorn ecosystem model allows the founders to see and understand which assets play a vital role in unicorn success. Using the model could also represent a means for founders to reflect upon and analyze their ecosystem to identify what could be changed or improved. Second, the model supports the need to develop regional attributes and supporting elements among governments. The model demonstrates that focusing on these attributes creates a sustainable competitive advantage. An environment that is conducive for healthy entrepreneurial ecosystems is one where unicorn success takes place.

## **6.3 Limitations and Suggestions for Further Research**

This study has three main limitations: First, it was limited to unicorn founders and key people in the start-up phase, and it did not consider other vital players for success, such as initial employees and investors. As a result, this study does not shed light on the influence of other contributing assets beyond the actions and perspectives of a narrowly selected group. While I took the deliberate decision to limit the study in this way, I intend to build upon it further during my upcoming doctoral studies.

Second, this study was limited by the low number of participants. While seven participants was enough to achieve saturation for the purpose of this study, further research will be required before we can be confident that the theory will apply to larger populations of unicorn start-ups and their successes.

Third, the participants in this study all had a specific profile: All of the participants were founders, key people behind unicorn startups, and males from the New Nordic region. The participants also had all achieved similar successes within a similar time frame, so they were very homogeneous in terms of their profiles.

To overcome the study's limitations, a replication in a different environment(s) with a considerably bigger and diverse pool of participants would be beneficial. This would also address the other issue of participants with similar profiles. The New Nordic unicorn ecosystem model might be examined for relevance to a broader population by replicating the study in this fashion, which could potentially confirm, disprove, or develop the model. This study could also be duplicated with people of different demographics, such as gender, age, education, and so on, to see if these characteristics influence the outcomes.

My long-term goal is to cover all of these aspects in my upcoming doctoral research, which will build upon this master's thesis.

#### **6.4 Final Thoughts**

One of the most surprising outcomes of this study was how coherent the themes were for the primary question of "Why?" The New Nordic region is regarded as being generally homogeneous, but despite this, I felt sure that the participants would differ in how they looked at the phenomenon when targeting such a big question with a grounded theory approach. Throughout the interviews, the same pattern repeated itself in a beautifully structured manner. Firstly, there was a shared view that it is not one thing but rather a combination of many things. Each of the participants started with this after giving the question a moment of consideration. This was expected, but what happened next was really exciting: Each of the participants started to bring up themes, beginning with discussing the entrepreneurial ecosystem and highlighting its importance, followed by

supporting this main theme with the same consistent elements, such as role models, financing, culture, and talent. Saturation and consistency were there despite the differing backgrounds and countries.

On proceeding with the interview process, having realized the saturation, I was able to start digging deeper within the themes. This yielded a high degree of interest and passion within the interviews, resulting in longer, more in-depth discussions. This topic was clearly of great interest, especially when delving deeper into it, so many new thoughts and ideas surrounding the phenomenon emerged, resulting in clear ways becoming apparent for continuing this research.

As stated at the start of this thesis, the unicorn phenomenon has not been studied before on a per capita basis. The in-depth interviews opened my eyes to new and innovative ways of looking at this phenomenon, though. For example, Henry brought up the example of ice hockey—which Finland excels at, for example—when looking at success per capita, so maybe there is something comparable here?

I believe this reflection is important because it highlights the coherence of the region's leaders, who are sitting on a treasure chest with their experiences that could pave the way for startup success. Indeed, these individuals are an untapped source of knowledge, and they have a much deeper understanding of the concept due to their experiences with building start-ups into world-leading brands in a short period. In summary, these individuals may not be the easiest to reach, but if they are, these individuals could not only provide unique and insightful data but also help challenge research by finding new ways to look at the phenomenon.

## 6.5 Conclusion

In this study, I aimed to understand why the New Nordic region accounted for so many unicorn companies per capita. The results of this study led to the creation of an ecosystem model based on the Triple Helix Model, which integrates various themes as the most important aspects for growth. By following this model, innovation ecosystem players can better understand the themes and areas that comprise an environment that is conducive to growth, an environment with a healthy ecosystem supported by role models, talent, and financing.

The purpose of this study was to adopt a first-hand perspective for why the New Nordic region accounts for the most unicorn start-ups per capita. Indeed, the study set out to answer the research question: "Why does the New Nordic region account for the most unicorn startups per capita?" To answer this question, I applied grounded theory and collected accounts from seven participants about their experiences as founders and key drivers behind unicorn start-ups within the New Nordic region. Throughout the study, I followed a continuous process of collecting and analyzing data, and this kept me close to the data and allowed concepts to emerge organically. This intertwined process for data collection and data analysis allowed me to make connections between emerging concepts, and a theoretical model evolved as I moved from the initial to the theoretical coding. As a result, I generated a relational unicorn ecosystem model based on the Triple Helix Model that includes the most important regional players and unique elements, such as active role models and financial investment, for creating an environment that effectively fosters unicorn startups.

**APPENDIX 1            EMAIL RECRUITMENT LETTER TO PARTICIPANTS**

"Why Does The New Nordic Region Account For Most Unicorn Companies Per Capita?"

The First-hand Perspectives of Key People Behind Nordic Unicorns

Dear X,

I am an entrepreneur conducting my master's thesis at Hanken School of Economics studying the novel question "Why Does The New Nordic Region Account For Most Unicorn Companies Per Capita?"

My aim is to answer this question through the first-hand perspectives from the people who have the actual experience of scaling start-ups into Unicorns in the New Nordics. You are one of the few within this outstanding group of people and that is why I am reaching out to YOU.

My ask is for you to participate in a 30–60-minute online interview.

I will inform you about all the details when getting your YES to my request!

Sincerely,

Ronny Eriksson

Hanken School of Economics

ronny@naapurusto.com

**APPENDIX 2          CONSENT MESSAGE TEMPLATE**

"I hereby give my consent to processing my personal data, as obtained from the [indicate survey/interview/laboratory experiment] I am about to respond to, for the purpose of scientific research.

My personal data will be processed securely according to the data protection policy and ethical guidelines of Hanken School of Economics. The legal ground for processing my data is my consent and the Finnish Data Protection Act.

Moreover, I understand and consent to that

1. data that directly identifies me personally will not be visible in any results or publications based on the data;
2. such part of the data that directly identifies me personally (e.g., [indicate name, email address, address, or similar]) will be erased [within four weeks of my response], before any analysis of the data is conducted;
3. data that do not directly identify me personally (e.g., answers to survey/interview questions without identifying information) will be stored [for two years] for the purpose of conducting scientific research analyses;
4. up until [four weeks after my response], I can withdraw my consent and have the research team erase my personal data, or request the research team to show, disclose, or correct my data;
5. after the period of [four weeks after my response], I will not be able to ask the research team to show, correct, or erase my personal data, or withdraw my consent to participate in the research. This is because after the research team has erased the data variables that directly identify me personally, they cannot identify and extract my data from the overall dataset any more;
6. as an exception to 2) above, such verbal/textual descriptions which I give as responses in this study (e.g., by typing in, or speaking on audiorecording) and in which I may myself express my name or other information that may directly identify myself, will not be erased from the

collected data after the period of [four weeks after my response]. You may therefore want to avoid expressing your own name or identity in your responses;

7. as an exception to 2), such part of the data that directly identifies an organization I may work for or represent (e.g. , an organization's name) will not be erased after the period of [four weeks after my response]. However, these data will also not be visible in any results or publications based on the data.

Your contact information was received/sampled for this study from [insert very brief description].

A description record of the data processing activities of this research is available on request at [insert www address or email contact address]. If you have further questions regarding the research or if you want that your personal data are to be erased or corrected, please contact [insert contact email address of the principal investigator]. If you have complaints or other questions related to the processing of your personal data for this purpose, contact the data processing officer of Hanken School of Economics, [dpo@hanken.fi](mailto:dpo@hanken.fi)"

## 7 REFERENCES

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