



MBA Thesis

# Leadership Impact on Startup Success during Scaling up Phase

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The author(s) declare(s) that they have completed the thesis work independently. All external sources are cited and listed under the References section. The thesis work has not been submitted in the same or similar form to any other institution(s) as part of another examination or degree.

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# Abstract

A start-up faces many challenges during different phases of its journey to become a successful sustainable business. A successful scaling of the business is critical to the potential of the start-up and its ability to generate revenue and grow. Leadership has a very important impact on a start-up, navigating the business through different phases and their challenges. Even though it is recognized that leadership is impacted by many factors such as team members and internal and external factors around the organization and evolves with the time to handle those challenges, little is known about the impact of leadership on startups during the scaling phase, particularly when dealing with challenges such as human and financial capital shortage. This research is designed to explore leadership effect on startup's scaling up.

The study was conducted through interviewing successful founders and leaders how have navigated the new venture through scaling up phase, the thematic analysis shows that diverse influences of leadership qualities and traits on startup scaling aspects challenges human and financial capital. There is a dynamic interplay between leadership characteristics and organizational contexts in the successful scaling of startups. Leadership qualities such as educational background, and prior leadership experience are scrutinized for their influence on strategic decision-making and team management during critical growth phases.-The study highlights how leadership styles evolve from transactional to transformational to meet the increasing complexity of scaling enterprises. Additionally, team composition and their attributes and organizational changes, including hiring practices and structural adjustments, are pivotal in accommodating the evolving demands of the business, reflecting a thorough integration of leader attributes and environmental factors in scaling success.

The study of leadership characteristics, team members, and organizational context in startup scaling provides several promising avenues for future research such as study in leadership evolution within specific industries or comparative studies across industries, global and cultural variations affecting leadership, role of gender and diversity in leadership, the effectiveness of different leadership styles and many more.

**Keywords:** Start-up, Scale-up, Leadership, Success Factors

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## List of abbreviations

AFC	Average Fixed Cost
CRS	Constant Returns to Scale
IRS	Increasing Returns to Scale
MRPL	Marginal Rate of Productivity of Labor
NEER	Nominal Effective Exchange Rate
PPF	Production Possibility Frontier
PSUs	Public Sector Undertakings
SLR	Statutory Liquidity Ratio
TP	Total Productivity
VMPL	Value of Marginal Rate of Productivity of Labor



# I. Introduction

A startup is generally defined as a newly established young company founded by one or more entrepreneurs to develop a unique product or service and bring it to market (Bednár, Tarišková, 2017). Technological advancement and growing digitalization pushed the need for more innovative solutions and created opportunities for many startup companies. Startups are growing rapidly especially in countries where the startup ecosystem is favorable such as Sweden (Start-up ecosystem report 2022 2023). Startups are seen as the new seed for sustainability and the growth of the economy, and the tech startups are very important for economic development and for creating new jobs (Adelino et al., 2017). Many research studies have addressed internal factors for startup success such as the need of creating added value, market segmentation, and the importance of networking at individual level, mainly CEO (Gruber et al., 2013), and at organizational level (Chu & Yoon, 2020). And some of them have put high importance on the business model and its ability to change dynamically for the success of a startup (Balboni et al., 2019). But still a very few startups have been able to enter the market successfully and sustain in a competitive environment (Hincapié, 2020).

With the development of the European start-up ecosystem, many tech start-ups have been founded but their growth performance at the later stages remains a challenge for entrepreneurs, where the majority of big success stories come from the USA (Durufle et al., 2017). A new study from McKinsey Global Institute (Smit et al., Securing Europe's competitiveness: Addressing its technology gap, 2022) suggests that Europe might lose 2 to 4 trillion Euros by the impact of slow-motion corporates and technical crisis. The Swedish start-up ecosystem could be facing similar challenges where start-ups are unable to grow the business and scale-up at European or global level. According to Telia Sweden CEO Anders Olsson interview in a Swedish IT and Telecom industries report, it is very important to establish growth-able start-ups to gain global competitiveness (Tech – Sweden's new basic industry, n.d.) The growth to scale-up the business could be impacted by several factors and their importance (Zajko, 2017) including location. Despite Sweden's robust startup ecosystem, characterized by successful role models, strong corporate presence, a digitalized and tech-savvy society, creative culture, transparency, widespread use of English, and good access to funding, it faces significant challenges. These include a lack of ambition, a small population, limited interaction between corporations and startups, insufficient public sector support, a risk-averse culture, problematic market structure, and difficulties in raising capital. These issues pose hurdles even in a highly competitive market dominated by major corporations (Sweden Startup Ecosystem Country Guide, 2021).

Innovators and entrepreneurs are not only establishing new companies based on unique ideas or addressing market gaps, but they are also committed to benefiting society. They strive to create jobs, introduce superior products and services, and simultaneously achieve economic success (Gilbert et al., 2006). However, these startups face many challenges in different development stages, starting from the right ideas, tackling limited resources, attracting capital for successful entry in the market (Prohorovs et al., 2019) and finally to sustain the growth and be competitive (Eisenmann, 2021). In the lifecycle of a startup, scaling up is a critical phase that involves expanding the business significantly after establishing a product-market fit and a viable business model, while every stage of a startup's growth has its importance, the scale-up stage is particularly crucial because it transforms a proven concept into a large-scale operation. (Durufle et al., 2018).

Gilbert, McDougall, and Audretsch (2006) discuss the importance of resource management during the scale-up phase, this includes mainly human capital and financial capital, highlighting that how a startup manages its resources during this growth phase can be decisive in its long-term success. They note that resource constraints, if not managed properly, can lead to inefficiencies and growth bottleneck. The study conducted by Sevilla-Bernardo et al (2022) analyzes 60 recent articles to identify key factors driving startup success, combining academic research with business practice insights to establish a "Core-7" set of success factors. The findings highlight the startup idea as the most critical predictor of success, followed by the CEO's leadership, business model, marketing strategy, and the entrepreneurial team, while also noting that cultural differences influence these factors' perceived importance.

Founders play a crucial role in shaping new ventures by setting missions, goals, and motivating employees, often employing either transactional or transformational leadership styles (Ensley et al, 2006). Skawińska and Zalewski (2020) and Hmieleski, Cole, & Baron, (2011) have delineated parameters for the success of startups which do not explicitly address leadership but imply that effective leadership is the linchpin that harmonizes all elements, fostering a synergistic environment. As highlighted by DuBrin (2016), the ability of a leader to unleash the full potential of their team is pivotal in maximizing the likelihood of a favorable outcome. The research indicates that the effectiveness of these leadership styles varies with environmental dynamism; transactional leadership fares better in stable environments, and transformational leadership in dynamic settings (Ensley et al, 2006). This study highlights how different factors are interconnected and affecting leadership in new ventures teams can significantly impact the firm's performance by effectively navigating the strategic challenges of the scaling process.

Many internal and external factors contribute to the success of startups (Zajko, 2017, Bednár, Tarišková, 2017, Sevilla-Bernardo et al, 2022) and can be investigated. The performance of new ventures is heavily influenced by the behaviors of their leaders, noting that both personal attributes (DuBrin, 2016) and leadership styles significantly impact its success (Ensley et al, 2006). This research is motivated by the critical need to understand the leadership's impact on the startup to successfully navigate the scaling-up phase, a period marked by significant challenges including financial constraints and limited human resources.

The leadership of startups plays a crucial role in this transition, yet existing literature has not sufficiently explored how leadership with its styles and personal attributes as well as team members and organization are interconnected and impact a startup's ability to scale. This gap in the research presents an opportunity to delve deeper into the influence of leadership on startup success, particularly during the critical phase of scaling up. Furthermore, due to the ever-evolving nature of the startup environment, this study will help to provide an up-to-date understanding of the leadership challenges encountered during the scale-up phase and fill the gap by highlighting and connecting different factors influencing leadership.

Qualitative research allows some adaptation as the study progresses (Denny & Weckesser, 2022). Given the rise of importance of leadership in startup's scaling up phase and the inadequate empirical inquires in extant literature, we conducted qualitative research to investigate leadership's role in facilitating startup's scaling up. Our research has been limited to find out how startup leaders can navigate the new venture and tackle different leadership challenges without going deeply into several internal and external variables involved within organization, society, government etc. The research has been conducted by

interviewing entrepreneurs of selected tech start-ups to understand the importance of these factors for them and how leadership played a role in navigating the challenges and seizing the opportunities that come with scaling a business. Effective leadership can significantly influence the direction, culture, strategic decisions, and ultimately, the success or failure of the startup during the critical scaleup phase. The results could be helpful to understand the importance of selected factors and how they are affecting tech start-up leaders.

## 2. Purpose and Research Question

The purpose of this thesis is to explore the critical role of leadership during the scaling up phase of startups. Building on prior research, which highlights the importance of effective resource management and identifies key success factors, this study aims to fill the gap in empirical research regarding leadership's impact on navigating the challenges of scaling up. By conducting qualitative research through interviews with successful startups' founders from selected tech startups, the insights gained will contribute to a deeper understanding of the factors affecting startup success and the pivotal role of leadership, ultimately influencing the success or failure of startups during their scale-up phase.

The key objectives of this research are:

1. Identify leader's characteristics: To explore key personal attributes of a leader which contribute to the success of the startup.
2. Examine leadership styles: To understand how leadership styles evolve during the scaling-up phase and their impact on startup performance.
3. Analyze team members and organization context importance: To investigate how team members and organizational context has influence on startup leaders adapt their organizational structures, processes, and resource allocation strategies during the scale-up phase.
4. Connecting above mentioned elements to provide an overall picture of leadership dynamics which is impacting the scaling phase of a startup.

This research will contribute to a better understanding of the leadership for startups by:

- Bridging the gap in literature: Providing empirical evidence on the role of leadership during the scaling-up phase and interconnection of its different factors, an area that has been underexplored in existing research.
- Practical Insights: Offering insights for startup founders on the importance of adaptive leadership and which factors to look for.

The research question is phrased as follows:

How does leadership impact the success of a tech startup during the scale-up phase by overcoming main challenges?

### 3. Previous Research

BTH online library and google scholar, have been used as a main source to find research papers as well as databases such as Business Source Premier, researchgate.net and DIVA. Further random searches were done in google. Keywords such as start-up, scale-up, new ventures, factors affecting start-up and scale-up or new ventures, leadership, leadership in start-ups, entrepreneurship in new ventures, funding of new ventures, financial capital, venture capital etc. were used. And also Sweden as the main keyword used to focus on the geographical area. The research articles were selected according to their scope to cover our topic and analysis to bring understanding to different factors. Mostly, recent research papers were selected to cover the latest trends and findings as well as peer reviewed, and most cited articles were considered.

This chapter provides some theoretical knowledge about start-ups, different stages of a start-up, Swedish start-up ecosystem and leadership and its role in human capital and financial capital during the scaleup phase.

#### 3.1 Start-up and Scale-up

The definition of a start-up has evolved over time and has been explained differently in different research papers. Kolvereid & Isaksen (2006) derived a basic definition of a start-up which is a new business started from scratch (Montani et al. 2020). However, more specific details were added by different authors such as Kollmann et al. (2016) who mentioned a start-up company should be younger than 10 years old, have a business model based on highly innovative technologies and strive for growth. A start-up is a high-risk enterprise which has identified its product/market fit (Zajko, 2017) and based on a business model which is repeatable and scalable and has a big growth potential after successful start (Bednár, Tarišková, 2017).

Start-up is considered an initial stage of an enterprise life cycle which should grow to a scalable phase in around 2 to 3 years under favorable internal and external conditions (Zajko, 2017). Skawińska & Zalewski (2020) derived a definition from different sources that a startup is a newly created independent small business providing expertise in the form of innovative niche products and solutions with a growth-oriented mindset (Skawińska & Zalewski, 2020). Creating new ventures is a stressful and demanding job where 20% of new ventures fail in the first year but the social benefits of a successful venture outweighs the cost of failure and therefore still very attractive for policy makers to lower the entry barriers for new ventures (Parker, 2011).

Digital economy from the mid-2000s onwards promoted new opportunities to practice the novel approach of entrepreneurship called 'Lean Startup' movement. To differentiate new innovative growth-oriented, risk-taking businesses from small stable businesses, start-up term was used in a new sense. Start-ups are now closely related to entrepreneurial character or also called scale-up which is an entrepreneurial firm on a scale-able business model (Autio, 2016). According to Granlund et al., (2005), a tech start-up or NEF (new economy firm) is a fast-growing company in technology business mainly in information and communication and biotech with strong R&D and VC financing. From the above-mentioned definitions, for this thesis, we consider a new company in the technology domain with innovative products or solutions which has already successfully started and is in start-up phase

within 2 to 3 years. (Montani, et al. 2020; Zajko, 2017; Bednár & Tarišková, 2017; Skawińska & Zalewski, 202

Scale-ups are corporate ventures who are beyond their initial exploration stage and have already achieved the product-market fit and are ready to enter the growth stage for exponential scaling of the business. (Duruflé et al, 2018). Autio (2016) mentioned a more specific definition that a Scale-up is a strong growth oriented 10 years old mature start-up based on scalable business model which has achieved €1 Million funding. Scalable stage has strong sales and marketing competencies, managing diverse groups of people, acquiring strategic inputs such as capital and suppliers. (Zajko, 2017). According to the Deloitte report scale-up: the experience game (Goldschmeding, 2015), scale-ups are the start-ups which achieve more than \$10 million in revenue by 5 years and their valuation can be in billions by 10th year. According to the Deloitte research, the chance of a start-up to become Scale-up is only 0.5% which means 1 out of 200 new start-ups who survive all the stages, and Unicorns are even a small part of Scale-ups. Unicorns are start-ups with a value over \$1 billion (Goldschmeding, 2015). According to OECD Eurostat, start-ups with average annual growth of more than 20% over a three-year period are considered high-growth scalers (OECD iLibrary, n.d.).

### 3.1.1 Different Stages of Startup

Start-up is mentioned as the second stage of four development stages of a new venture during a specific time as shown below in figure 1 (Skawińska & Zalewski, 2020).

- Stand-up > Initial stage of innovation, creation, and buffering
- Start-up > Second stage of search for business growth
- Scale-up > Third stage of rapid growth, market development and strategic collaboration
- Scaler > Fourth and final stage of sustain growth and become leader

Startup Commons has shown the development stages from idea to an organization of a start-up with required talents. Before scaling, validation is an important stage to find product/market fit with a small customer base, established performance KPI's and securing initial financial stability. (Startupcommons, n.d.)

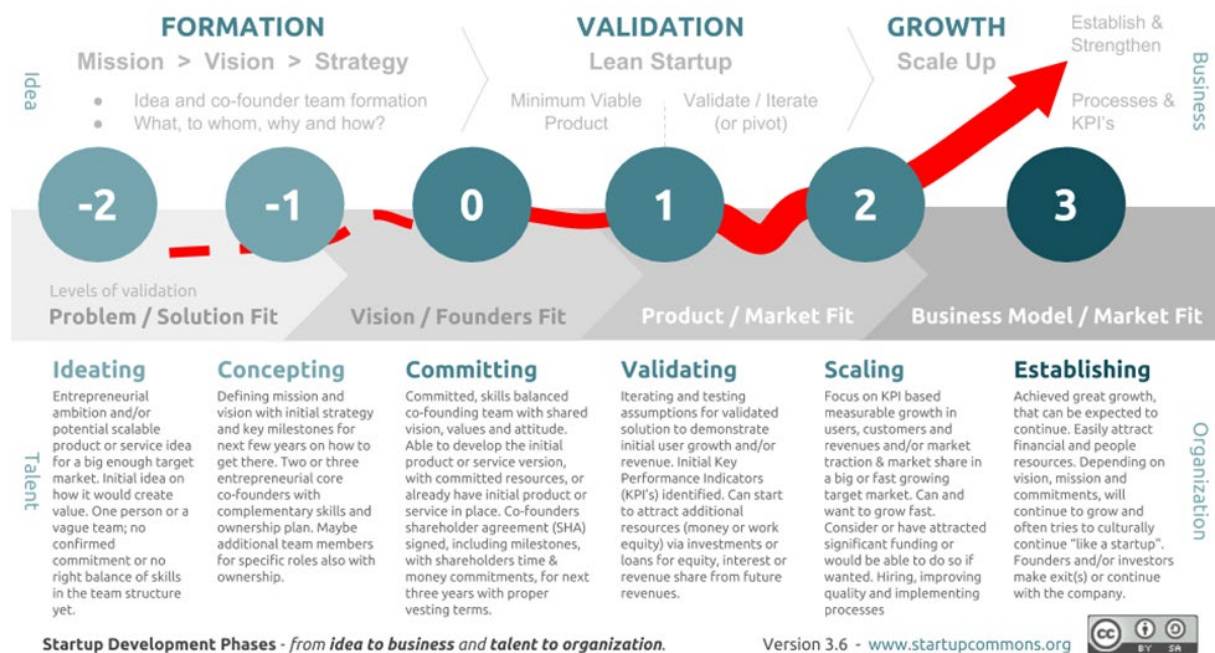


Figure 1: Startup Key Stages by Startup Commons is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License. (Startupcommons, n.d.)

Start-ups go through different stages of development. In the start-up life cycle, a start-up goes through different stages, such as seed, startup, first stage, expansion, bridging, spin-off and public (Granlund et al., 2005).

### 3.1.2 The Swedish Startup Ecosystem

Start-up companies contribute hugely to a country's economy, innovative technology, and job creation. (Montani et al, 2020). A start-up ecosystem is a group of people, start-ups and related entities that work together as a system to create new start-up or/and scale up them. (Minnalearn, n.d.) Sweden considers itself a key innovation hub in Europe focused on start-ups innovations. According to Sweden Tech Ecosystem: Report 2021, Swedish tech ecosystem continues to grow with 7.8B euros of funding in 2021 and 35 unicorns. In the top ten start-ups in Europe, most valuable start-ups such as Klarna (1st) and Northvolt (4th) are from Sweden but at the same time, four start-ups are from the UK, two from Germany and one from Ireland and Estonia each. According to a pool, Sweden is at number 5 for potential future unicorns in Europe far away from the UK, Germany, France, and Switzerland. For other aspects, such as venture capital investments Sweden enjoys higher ratings in Europe. (Sweden Tech Ecosystem: Report 2021 2022)

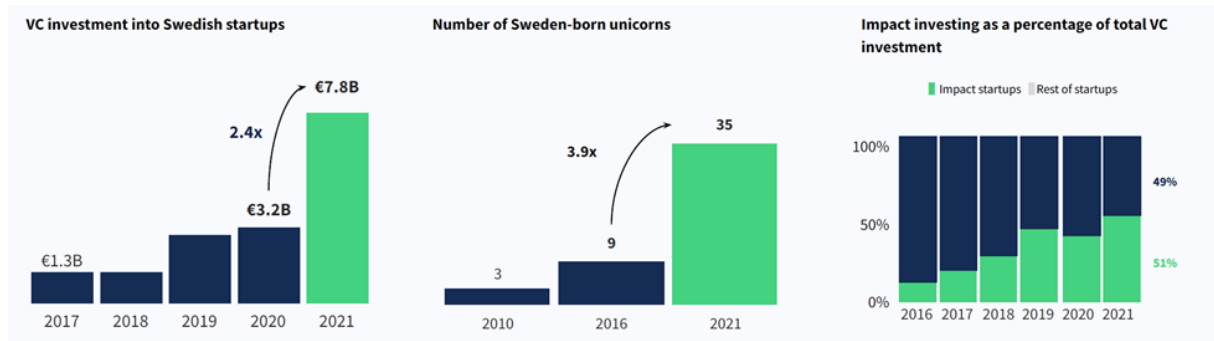


Figure 2: (Sweden Tech Ecosystem: Report 2021 2022, p6)

Pär Hedberg from STING (Stockholm Innovation & Growth) has mentioned the following main differentiators and challenges of the Swedish start-up ecosystem.

DIFFERENTIATORS	CHALLENGES
<ul style="list-style-type: none"> <li>• Strong pool of 'role model entrepreneurs'</li> <li>• World-leading corporations in many different fields</li> <li>• Tech-savvy population and a digitalized society</li> <li>• Collective trust leading to creativity and transparency</li> <li>• Good access to seed and early-stage venture capital</li> </ul>	<ul style="list-style-type: none"> <li>• Shortage of talent (especially developers)</li> <li>• Small population forcing (and encouraging) international expansion</li> <li>• Still low international ambition among entrepreneurs</li> <li>• Limited interaction between corporates and startups (limited exit market in Sweden)</li> </ul>

Table 1: Differentiators and challenges of the Swedish start-up ecosystem (startupuniversal, n.d.)

At the global level, Sweden start-up ecosystems enjoy high rankings. According to The Global Start-up Ecosystem Index Report 2022 by StartupBlink, Sweden gained 5th place in global rating. However, by comparing scores, the score gained is much lower than top countries, especially USA. Sweden has been praised for having a high-quality lifestyle, practice of gender equality, strong business climate in the country, and competitiveness at global level (Start-up ecosystem report 2022 2023).



Rank	Country	Rank Change (from 2021)	Quantity Score	Quality Score	Business Score	Total Score
1	<u>United States</u>	-	27.56	164.15	3.66	195.370
2	<u>United Kingdom</u>	-	12.66	36.10	3.79	52.555
3	<u>Israel</u>	-	7.10	34.82	3.15	45.062
4	<u>Canada</u>	-	9.40	22.35	3.51	35.264
5	<u>Sweden</u>	+1	4.68	20.03	3.80	28.502
6	<u>Germany</u>	-1	4.96	16.84	3.53	25.334
7	<u>Singapore</u>	+3	3.98	17.18	2.24	23.408
8	<u>Australia</u>	+1	5.95	12.86	3.64	22.454
9	<u>France</u>	+3	4.82	12.77	3.40	20.994
10	<u>China</u>	-3	1.97	16.04	2.65	20.663

Table 2: Startup Ecosystem ranking (StartupBlink, Start-up ecosystem report 2022 2023, p29)

### 3.2 Leadership

Leadership is a skill to motivate people and support them to achieve common organizational goals. A leader gives a shared direction and influence, coordinates, and orders its people to achieve organizations' objectives by good communication. The leader understands first what is right for the organization and is ready to take responsibility. Leader needs to have different traits fit for the situation such as authenticity, self-confidence, trustworthiness, optimism, assertiveness, extraversion etc. There are different leadership styles such as transactional leadership, transformational leadership, entrepreneurial leadership, or strategic leadership. Leadership can be found at different levels in an organization. (DuBrin, 2016).

Transactional leadership focuses on goals and associated rewards for motivation for employees. It is more of a bureaucratic leadership style where a leader's relationship with followers is important with focus on planning and execution by sticking to existing organizational culture (DuBrin, 2016). Transformational leadership evolved from Transactional leadership where leaders and followers closely work together to pursue a common purpose (Gupta et al., 2004) by building team spirit and qualitative work (DuBrin, 2016). In transformational leadership, leaders use charisma and enthusiasm to inspire employees. Ideas and needs of everyone are considered important with focus on innovation to change the existing organizational culture (DuBrin, 2016). Transformational leadership is more important than transactional or laissez-faire leadership for start-ups and has a positive influence on performance (Zaech & Baldegger, 2017).

Entrepreneur is also considered one of the several roles of leadership (DuBrin, 2016) and entrepreneurial leadership is related to transformational leadership (Gupta et al., 2004). Where a good

leader is someone who is able to inspire and motivate their team, an entrepreneur is someone who takes the risks, who innovates and who creates the new businesses that drive the economy (DuBrin, 2016). An entrepreneur has UpToDate knowledge of the industry and customers and gives innovative ideas and performance improvement suggestions. (Gupta et al., 2004) Leaders produce change and adapt to new things whereas managers are responsible for predictability, consistency, and order in the organization. A manager focuses on administration, planning and controlling aspects whereas leadership roles are more social where focus is more on people to inspire and motivate them towards an organization vision (DuBrin, 2016). In some posts, managers can claim to be entrepreneurs who have control over the business operation (Granlund et al., 2005).

### 3.2.1 Leadership in Start-ups

The success of a start-up is based on the good leadership of its founder which is now one of major attributes for a successful organization development. It also depends on the leadership style to overcome internal and external hurdles in achieving set goals (Skawińska & Zalewski, 2020). Early leadership in an organization can be pivotal for business development and long-term success Autio (2016). A start-up founder should have leadership skills to direct the team and lead the business. Despite being innovative, start-ups face many challenges during critical stages such as funding and chance of failure are always high (Ouimet and Zarutskie, 2014). After completing the first phase of proving product/market fit and successful business model, a leader is required in the transition phase to make the right adjustments (Pride, 2018). Since start-ups operate in a complex and uncertain environment (Sommer et al., 2009), the leadership's overall impact on start-up's success is influenced by many factors and their variables (Ziakis, 2022).

According to Pride (2018), a founder is part of the start-up DNA along with funding and business model and needs to have both capacity and capability. The risk of founder's failure is avoidable by addressing the issues early on of a start-up journey. The founder needs to be authentic, trustworthy, curious, focused, team-player, open to feedback, adapt to changes, quicker learner and customer-oriented. The founder should be physically, mentally, and emotionally fit and has drawn below model (Pride, 2018). Apart from personal characteristics, people who have high financial, human and social capital are more likely to start and scale a business than those who lack such resources (Parker, 2011).

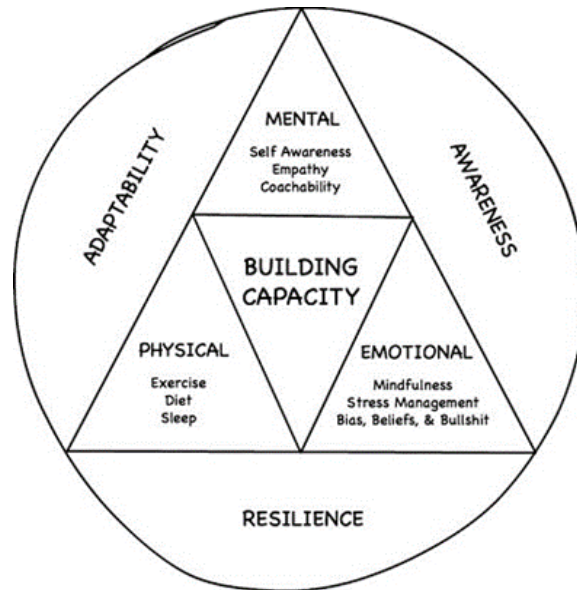


Figure 3: Founder fitness model (Pride, 2018)

Founder’s leadership style and mindset should change on the path to scale-up by balancing tell, direct, delegate leadership to empower, collaborate, coach leadership (Hull, 2016). This can only be done by having a clear understanding of leadership attributes and styles and making right decisions at right times. There is no one leadership style for start-up success and leaders should implement different leadership styles in different contexts and should be able to evaluate them (Zaech & Baldegger, 2017). Baldegger & Gast (2015) analyzes that in the beginning of the startup, the leadership style is more transformational with shared vision, goals and employee’s commitment but as the start-up grows, the leadership style changes to transactional leadership with giving tasks, providing support and creating processes and structures. Similarly, person-founder fit changes to person-organization fit with more focus on leadership and human capital management and perspectives changes from externally to internally to create proper structures and processes within the organization.

The leadership transition for founders			
Stage	Startup	Scale-up	Maturity
<b>Leadership context</b>	Starting a business, building a product and acquiring customers with a small known team.	Establish the business model, engage customers, diving culture and scale for accelerated growth.	Growth slows, and the business focuses on optimisation and efficiency.
<b>Leadership style</b>	Lead from the front. Pacesetter and more directive leadership style.	Lead through the senior leadership team. A stronger coaching and collaborative leadership style.	Lead from behind. Empowering, aligning and supporting the executive leadership team.
<b>Decisions</b>	Made by the founders with imperfect information.	Delegate, seek input and consensus decision styles emerge.	Higher levels of delegation and systems support decisions by the executive leadership team.
<b>Leadership impact</b>	Generate funding. Build a compelling product. Acquire customers.	Build a high performance senior leadership team. Developing strategy, structure, culture and systems.	Align the executive leadership team. Manage board.

Table 3: The leadership transition for founders (Batistich, 2022)

Founders are also mostly called entrepreneurs especially in start-up ecosystems because either entrepreneurial leadership focuses on recognizing and exploiting entrepreneurial opportunities (Renko et al., 2015), and/or the discovering of new vision and exploitation of strategic value creation with the help of a committed team (Gupta et al., 2004). Entrepreneurship qualities required for new ventures have evolved in the recent past and are practiced with the same characteristics globally with digitalization playing a crucial part in business processes creating a whole new entrepreneurial ecosystem (Autio, 2016).

Autio (2016) draws the entrepreneurial ecosystems in two layers. The inner layer with entrepreneur's characteristics at individual level divided into attitudes, abilities and aspirations, and outer layer of its context which influence the new venture progress (Autio, 2016). The leadership style and performance are mainly influenced by its organizational context, which are organization's culture, goals, people, processes, state, structure, and time (Porter and McLaughlin, 2006). Balawi and Ayoub (2022) evaluated strengths and weaknesses of an entrepreneur by using the Global Entrepreneurship Index (GEI) framework. GEI explains entrepreneurship by individual and institutional variables and consists of the following three main subindices and 14 pillars (Balawi & Ayoub, 2022).

Attitudes: country's attitude towards entrepreneurship

Abilities: Required entrepreneur's skills

Aspirations: Creating new scalable business

All variables need to work together to achieve a high score on each pillar and subsequently entrepreneurial and start-up success (Balawi & Ayoub, 2022). Rotefoss & Kolvereid (2005) analyze that different resources available to an entrepreneur such as education, experience, unemployment and political ethos influence different entrepreneurship milestones in the startup process, i.e. aspiring or nascent entrepreneurs or business founders.

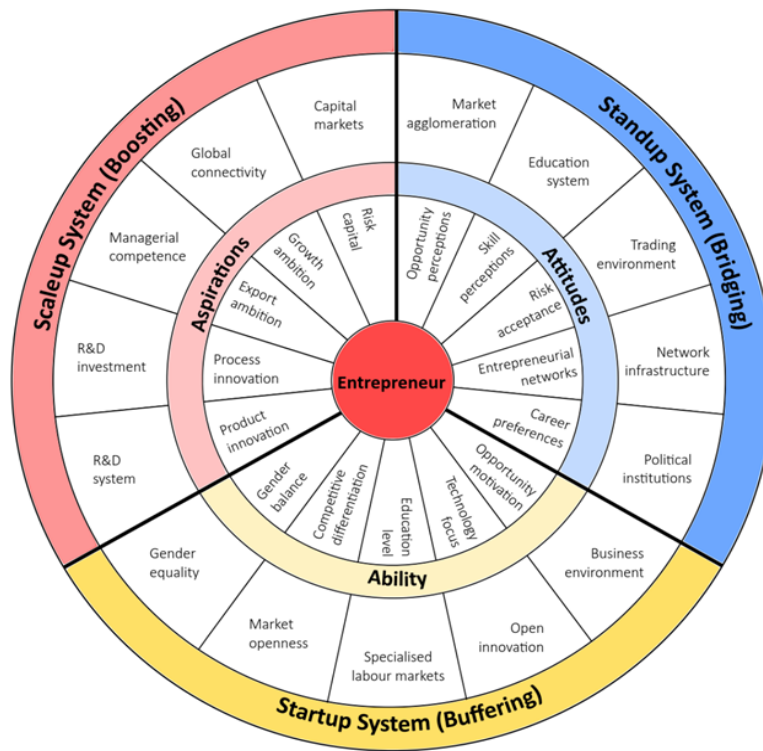


Figure 4: Structure of Entrepreneurial Ecosystems (Autio, 2016)

Balawi and Ayoub (2022) analyze the strength and weakness of the Swedish entrepreneurial ecosystem by using the Global Entrepreneurship Index (GEI) framework and highlight the weak factors and possible solutions. From data gained between 2015–2018, Sweden achieved 6th position among 73 countries and 3rd among 17 European countries. All 14 pillars of GEI score performed well except start-up skills, human capital and slow growth which affected the entrepreneurial aspirations on solid institutional variables (Balawi & Ayoub, 2022).

According to the author, skill relevant pillars are related to education and proper training is required to improve entrepreneurial skills. Human capital is related to the labor market and educational level where the state needs to invest more in technology-driven skills and improve laws for entrepreneurship. High growth pillar was negatively affected by low “Gazelle” companies' scores. Risk capital pillar was affected by informal investment such as financing from family members, friends, or private investors. Therefore, more support and resources should be provided to encourage these investors to help in contributing to start-ups. Although Sweden has achieved high ranking, there are still many factors affecting new ventures and right policies are required to fill these gaps and improve the Swedish entrepreneurial ecosystem (Balawi & Ayoub, 2022)

	PILLARS		INSTITUTIONAL VARIABLES		INDIVIDUAL VARIABLES	
Entrepreneurial Attitudes	Opportunity Perception	0.98	Freedom	0.87	Opportunity Recognition	1.00
	Start-up skills	0.47	Education	0.75	Skill Perception	0.41
	Risk Acceptance	0.72	Country Risk	1.00	Risk Perception	0.49
	Networking	0.73	Connectivity	0.87	Know Entrepreneurs	0.58
	Cultural Support	0.89	Corruption	0.98	Career Status	0.48
	<b>Entrepreneurial Attitudes</b>	<b>70.4</b>				
Entrepreneurial Abilities	Opportunity Startup	0.97	Governance	0.98	Opportunity Motivation	0.87
	Technology Absorption	0.98	Tech Absorption	0.96	Technology Level	0.97
	Human Capital	0.64	Labor Market	0.65	Educational Level	0.81
	Competition	0.85	Competitiveness and Regulation	0.83	Competitors	0.87
	<b>Entrepreneurial Abilities</b>	<b>78.2</b>				
Entrepreneurial Aspirations	Product Innovation	0.71	Technology Transfer	0.93	New Product	0.62
	Process Innovation	0.92	Science	0.97	New Technology	0.51
	High Growth	0.53	Finance and strategy	0.93	Gazelle	0.50
	Internationalization	0.88	Economic complexity	0.96	Export	0.79
	Risk Capital	0.67	Depth of Capital Market	0.90	Informal Investment	0.72
	<b>Entrepreneurial Aspirations</b>	<b>69.4</b>				
<b>GEI</b>	<b>72.7</b>	<b>Institutional</b>	<b>0.90</b>	<b>Individual</b>	<b>0.69</b>	

Table 4: Factors affecting new ventures (Balawi & Ayoub, 2022)

### 3.3 Human Capital and Human resources in Start-ups

In the start-up business, education, experience, training, knowledge and personal abilities of the leader and the employees are considered human capital for the organization. It is often viewed as the collective capabilities and intellectual assets that employees bring to the venture (Rotefoss & Kolvereid, 2005, Parker, 2011). This is managed by the human resources responsible for recruiting, hiring, training and developing employees, among other responsibilities. Other than the startup founder's contribution, VCs can also impact the new ventures by providing management skills and expertise in the form of human capital through their networks (Alexy et al., 2012).

Start-up's human capital is an important resource and critical for business survival for several reasons. It spans from strategic alignment with corporate strategies and goals to the development of organizational culture, talent management and compliance with legal regulations. Unlike in established companies where HR practices are often already set, in startups, HR could be a unique opportunity to build the foundation, attract external partners and shape the culture from the ground up (Parker, 2011).

HR could play a pivotal role in aligning the human capital strategy with the startup's overall business strategy. Wright and McMahan (1992) highlight the concept of strategic human resource management, which posits that the alignment of HR practices with the strategic goals of an organization can enhance performance. In startups, where resources are scarce and the pressure to perform is high, such alignment is crucial for sustainable growth. For startups, this means that HR practices, such as recruitment, training, and performance management, should be designed to support the startup's growth objectives. Skawińska and Zalewski (2020) discuss the importance of human capital as a

success factor for startups. They have argued that human capital should be considered as a set of skills which motivates the people to perform and access to human capital is a key differentiator for startup development.

In the early stages, a start-up must attract and retain top talent to innovate and compete. Barber (1998) discussed the importance of the recruitment process in attracting high-quality candidates, suggesting that the manner in which organizations recruit can significantly impact their ability to secure the best talent. For startups, innovative HR practices in recruitment and selection may provide a competitive edge. Mathis, Jackson, Valentine, and Meglich (2017) emphasize the critical role HR plays in ensuring compliance with labor laws, thereby mitigating the risk of legal challenges that can be particularly damaging for startups. Startups, like all businesses, must navigate the complex landscape of employment law and regulations of that country.

### 3.3.1 Leadership Challenges in Human Resource Management

HR could be instrumental in developing and nurturing organizational success, which in turn affects employee engagement and retention. Delbridge & Fiss (2013) discuss the importance of organizational agility in adapting to changes in the business environment because startups often experience rapid changes in their organizational structure and strategy as they scale. This can pose a challenge for HR leaders who need to ensure that HR practices are agile and adaptable to keep pace with these changes. Hitt et. al., (2012) emphasized the role of strategic leadership in achieving alignment and driving growth. For startups, this means that leaders must be adept at communicating the strategic vision, engaging employees, and fostering a culture of innovation and agility.

HR leadership in startups faces a unique set of challenges that stem from the dynamic and often unpredictable nature of the start-up business (Sommer et al., 2009). Schein (1985) introduced the concept that organizational culture stems from the beliefs and values of its founders, and HR practices play a significant role in embedding these into the organizational fabric. Startups with strong, positive cultures tend to have higher levels of employee engagement and can better attract talent and retain them. As startups grow, the need for effective leadership at all levels becomes critical. Day (2014) discusses the importance of leadership capacity building in organizations where HR and senior leadership should identify potential leaders within the organization to ensure that they are capable of taking on new challenges and drive growth. It also discusses the importance of cultivating leadership capacities to ensure organizational resilience and adaptability.

In the beginning of the start-up, human resources are of less importance for the leader because of other important aspects such as product, customers, suppliers and competition etc. and limited know-how. However the focus changes with the growth of the start-up. The leadership style changes from transformational to transactional and employees need to fit more with the team and organization rather than the founder's characteristics (Baldegger & Gast, 2016).

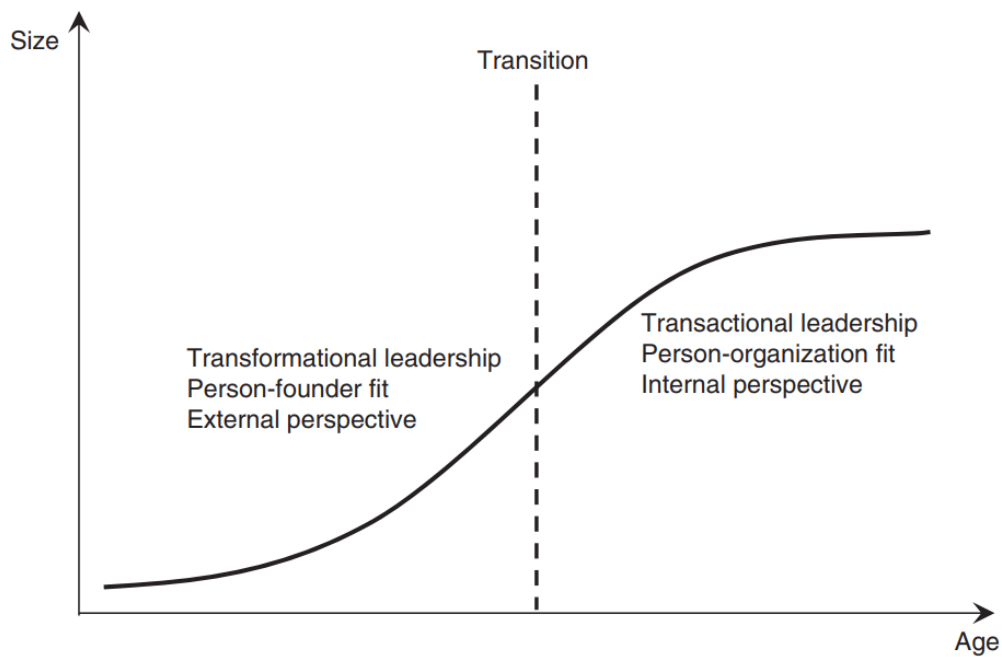


Figure 5: Transition during new venture development (Baldegger & Gast, 2016)

### 3.4 Financial Capital

#### 3.4.1 The Important of Financial Capital

Resources in general play a critical role in the success of startups, Skawińska and Zalewski (2020) suggest the first element of startup success in Europe is good access to the right resources. Access to funding is critical for startup survival and growth, according to a study by CB Insights (2018), the lack of funding is the most most common reason why startups fail, same finding suggested by Cantamessa et al. (2018), inadequate funding is the first reason of the startup failure especially in the tech industry.



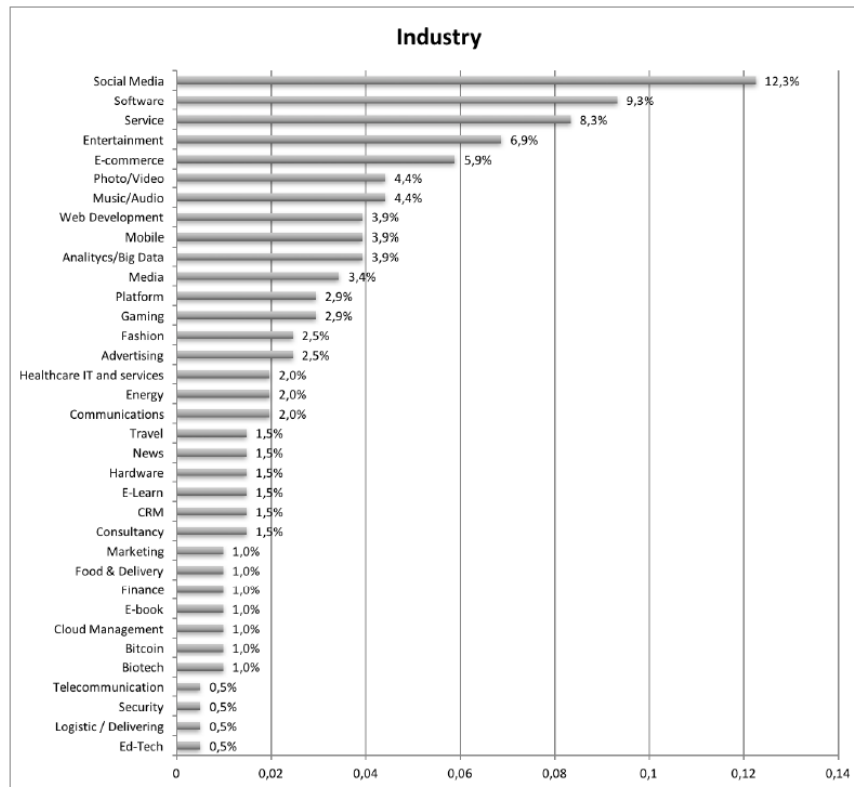


Figure 6: Failure by industry (Cantamessa et al, 2018)

Startups need funding to get off the ground, and the right amount of funding can make all the difference. With funding, startups can invest in equipment, talent, and marketing, as well as cover operational expenses until they are generating revenue. Startups need the right people to build and grow their businesses. Hiring skilled and experienced individuals is crucial to building a strong team and executing the company's goals. Marketing is another very important factor of success and : In today's competitive business environment, marketing is essential to stand out from the crowd. Startups need the right resources to develop and execute marketing campaigns, including social media, content marketing, and public relations.

Skawińska and Zalewski (2020), suggest that Having access to the right resources is critical for startup success. Without adequate resources, it can be challenging to launch and grow a business in a competitive market. By prioritizing funding, talent, marketing, and expertise, startups can set themselves up for success and increase their chances of long-term sustainability. In (IT, ICT domain) Skawińska and Zalewski (2020) emphasize more difficulty for startups to get the right funding and suggest startups should get additional financial governmental support.

Shikhar Ghosh of Harvard Business School (Ghosh & Nanda, 2012) found that startups that raised between \$1 million and \$2 million had a significantly higher chance of success than those that raised less than \$1 million or more than \$2 million. (Ghosh & Nanda, 2012) Suggests The optimal amount of funding can vary depending on the industry and business model. Even the lean startup that tries to avoid big investment and shorten the failure time (fail quickly) needs adequate and enough money and funding to survive.

According to the below suggested model from Skawińska and Zalewski (2020), the resources are the first element of the business, and the source of funding can impact startup success, startups that receive funding from angel investors are more likely to succeed than those that receive funding from venture capitalists. This may be because angel investors tend to be more patient and supportive of early-stage startups. Also the timing of receiving the finding is so important, if too early the money will be wasted, if too late the startup may fail completely.

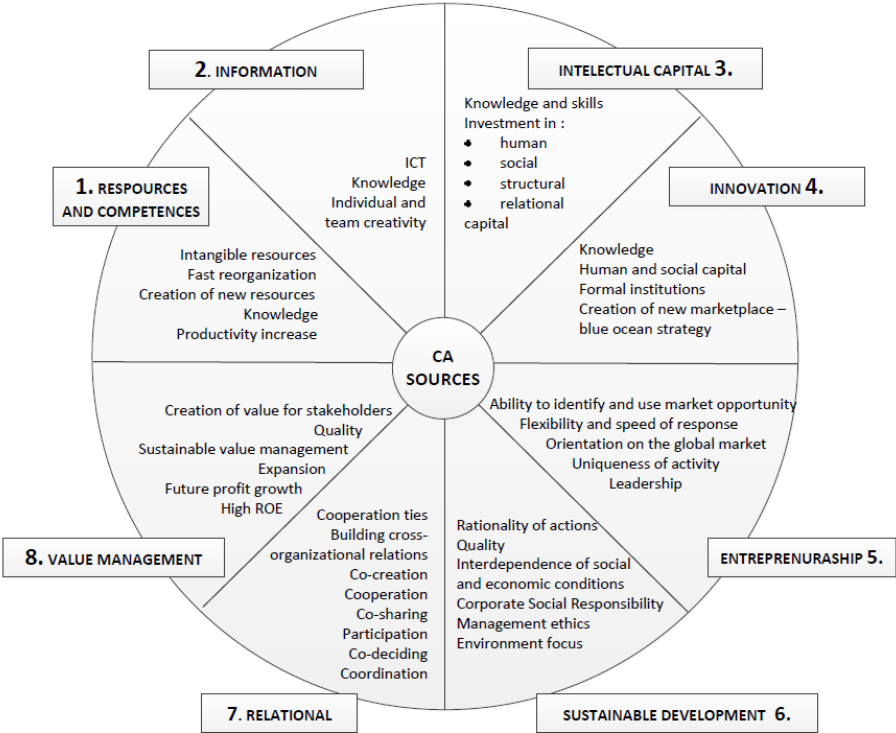


Figure 7: CA sources (Skawińska and Zalewski, 2020)

Financial Capital is the first input on the firm system to create and capture value. With no capital then the dynamic of the firm is on hold. Also to capture value and generate revenue the firm needs to make sales and marketing efforts which are costly too (Engwall et al., 2018). We can see that illustrated clearly in below picture:

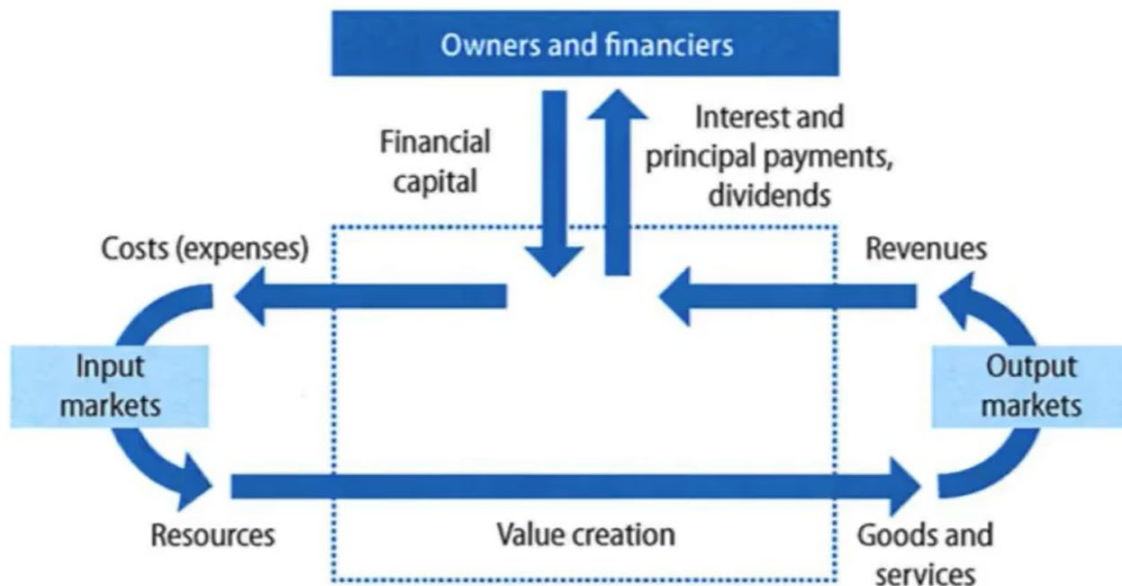


Figure 8: Modern industrial management, (Engwall et al., 2018)

A new tech company needs to develop a technology that should be accepted and adopted by users which is time and money consuming for the new startup, (Rogers et al., 2019). Adoption from end users also takes time as illustrated in the below chart, and a good penetration requires investment that will not return any dividend in a short time.

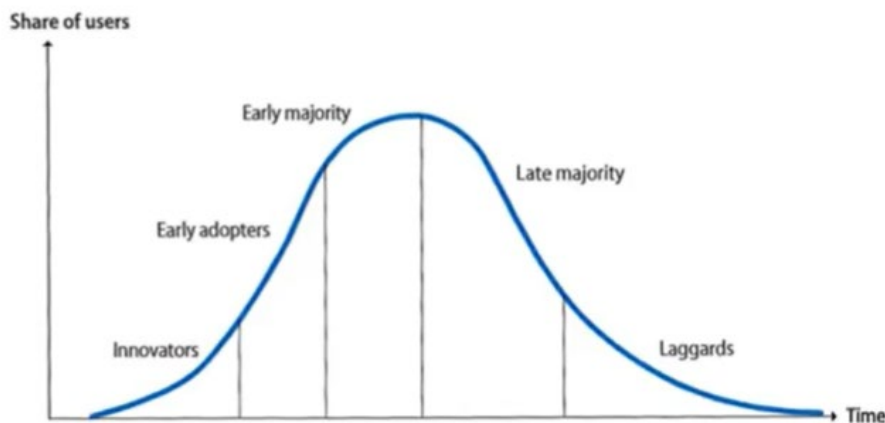


Figure 9: Diffusion of innovations, (Rogers et al., 2019)

One other aspect of the high need of capital is to secure the resources that can manage the innovation and the technology acquired by the start-up, by that the firm should have good capital and fund to attract good managers who will execute and lead the company, (so technical advantages are not enough alone they need managers and team that can exploit them, (Baptista et al., 2014) and (Davidsson & Honig, 2003)

During the value creation process, economy of scale and economy of scope are very vital for the startup possibility to grow and succeed, (Chandler et al., 2009). However, economies of scale are very

difficult without reaching new customers and without putting in a lot of investment, enough funds are very important for creating the value needed (Junius, 2005), the study find that an access to possible funding is crucial for businesses to achieve economies of scale, which later will wield economical return and potential growth.

Tech startups also have the advantage of benefiting from network effects, but that too needs a lot of investment. Katz & Shapiro (1994) argue about the high importance of the network impact in the high-tech industry, still there is high cost and huge need to have enough funds to capture this network. Value capturing as well needs patents and that could be also another costly path. According to Bessler, W., & Bittelmeyer, C. (2008) the benefits of patents are huge, but it is not free of charge, it requires time and resources, and without enough finding it is not possible to obtain and capture the value of the patents.

### 3.4.2 Financial Capital Resources

- Personal funding

Personal funding in a startup refers to the money that an individual invests in their own business venture, typically in the early stages of the startup's development. Personal funding can come from the founder's personal savings, investments, or other sources of personal wealth, such as inheritance or a loan against personal assets. This type of funding is often used to cover the initial costs of starting a business, including product development, market research, and legal fees. Personal funding can also be used to bootstrap the company until it becomes profitable or until external funding is secured from investors. In some cases, personal funding may be the only source of capital available to a startup, especially if the business is in a niche industry or has a unique business model that is not attractive to traditional investors (Söderblom, 2012).

- Private equity (Business angels, venture capital)

Venture capital (VC) is a type of private equity financing that is typically provided by venture capital firms to early-stage, high-growth companies that have the potential to become market leaders in their industry. VC firms invest large sums of money in exchange for an ownership stake in the company and a share of the potential profits. The goal of venture capital is to help startups grow and scale rapidly by providing the necessary funding, mentorship, and industry connections to achieve success. (Gompers, 1996)

Before the startup is able to get interest from the VC, normally it seeks financial support from the angel investors, or what is named seed funding. A business angel is an individual who invests their own money into early-stage businesses in exchange for an equity stake in the company. Business angels are typically experienced entrepreneurs or successful business people who are looking to invest in the next generation of startups. They often provide mentorship and strategic advice in addition to funding and can be a valuable resource for startups in the early stages of development. (Gompers, 1996) and (Bottazi et al., 2004)

Angel financing tends to invest in early company stages (Wong et al., 2009). On average, the target firms for angel funding are about 10 months and normally those firms in this stage do not generate any profit yet. Business angels usually invest in companies within geographic reach. The investment

amounts are normally small: in the USA less than 1 mUSD on average, and in Sweden only 13.5 thousand EUR on average (150 KSEK) (Avdeitchikova, 2008).

In Sweden, there are several seed-stage venture capital funds that provide financing and support to early-stage companies, including Almi Invest, EQT Ventures, and Creandum, among others. Venture capital firms typically invest larger amounts of money than business angels and take a more hands-on approach to managing their investments. They often provide expertise, connections, and guidance to help startups scale and grow quickly (Söderblom, 2012).

While both business angels and venture capital firms invest in early-stage startups, there are some key differences between the two. Business angels are often individual investors who provide smaller amounts of funding, while venture capital firms invest large sums of money on behalf of institutional investors. Business angels also tend to be more involved in the day-to-day operations of the startup, while venture capital firms take a more strategic approach to managing their investments. (Gompers, 1996) and (Bottazi et al., 2004)

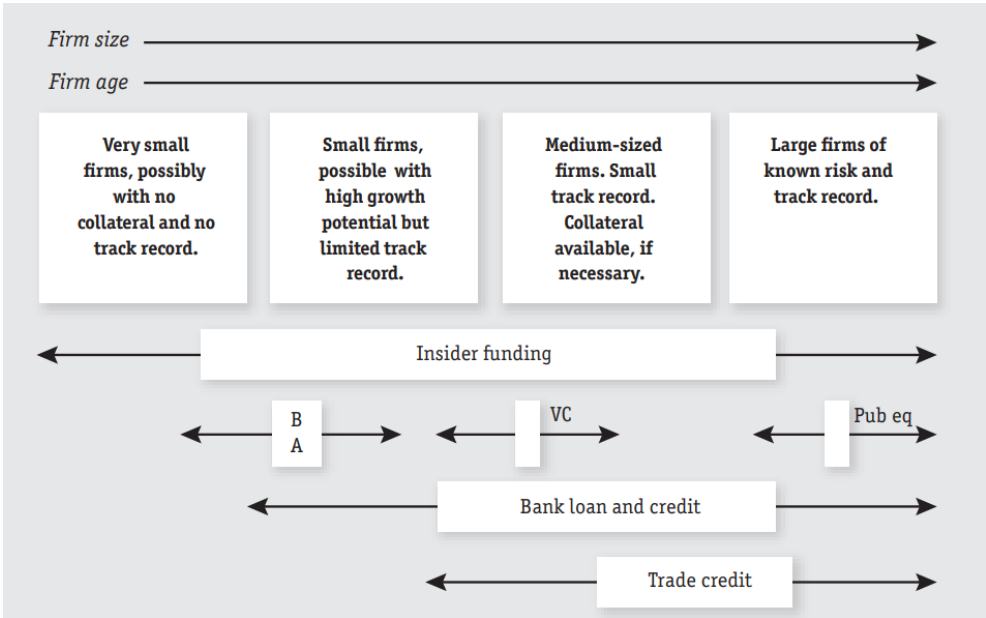


Figure 10: Different type of financial fund with respective firm’s age and size (Söderblom, 2012)

### 3.4.3 The failure/challenge of Swedish funding System

One of the important exploratory researches in Sweden pointed out many challenges in the Swedish funding system, Larsson, J., & Fahnehjelm, C. (2018) investigate the position of the funding system to support new tech companies. And the study suggests that there is a high tendency to avoid risk in the Swedish funding system, and to lean toward well-established companies. That might be because of less understanding about the potential of the new technologies, or because of risk-averse behavior in general. The study suggests risk aversion may slow down the growth of the startups, especially for the tech and IT and innovative new startups that have high risk in the early phase.

Another study in the Swedish VC industry, Avdeitchikova (2008) found that the range of angel market is between 385 and 450 mEUR per year, compared with the GDP it is just one percent. This is a

somewhat low contribution. Månsson and Landström (2006) showed that 54 percent of the Swedish informal VC investments were total losses.

For the more formal funding system, the VC is the main support of the new venture, as illustrated the VC take place after the seed and angel funding and with a more formal support, from the investor point of view the VC is quite risky and the cost to invest in a new venture id high, as the failure percentage is high, the investors are looking to have high return for the successful startups to pay off the losses of the failure, and that means, only very few startups attract and pass the threshold of venture capital, (Ballou et al., 2008).

Based on data from the Swedish Agency for Economic and Regional Growth (Tillväxtverket) and from SVCA, there were 46,000 new firms and startups that were founded in Sweden between 2002 and 2009, and the percentage of the startups that receive financial funding from the venture capital is just 1.2 percent. Söderblom, A. (2012), suggests that the venture capital in sweden is becoming risk averse, and invests just in a later stage of the company life. And it showed that the venture capital in total has decreased 65%.

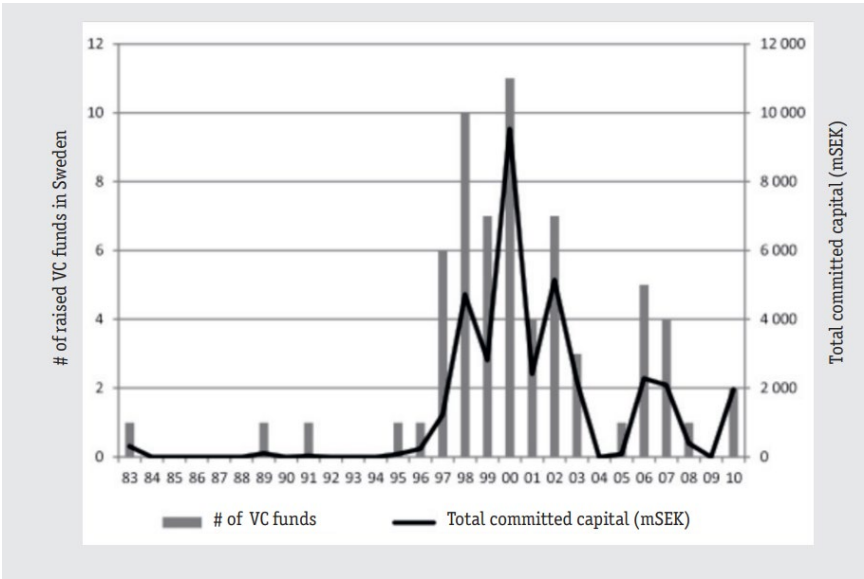


Figure 11: A decline on the number of VC in Sweden, and on the committed Capital (Söderblom, 2012)

TYPE OF VC FIRMS	VC FIRMS 2002	VC FIRMS 2011	Active VC FIRMS 2011	REDUCTION
Fund based	40	21	8	80%
Private	36	28	18	50%
Corporate	28	12	5	82%

Publicly listed	14	4	2	86%
Governmental	31	25	19	39%
Total	149	90	52	65%

Table 5: VC operating in Swedish market (Söderblom, 2012)

Larsson, J., & Fahnehjelm, C. (2018) identifies potential opportunities for improvement, such as greater collaboration between venture capitalists and startups, increased education and training for venture capitalists on emerging technologies, and the development of new funding models and structures to support new technology-based firms.

### 3.4.4 The Relation Capital/the Impact of the Location and Market Size

Eventhough the tech startup is a national startup, there is an access cost to the new foreign market, (Burgel & Murray, 2000). The location of a startup can have a significant impact on its success, the location of the startup will define how easy it is to be close to customers and to suppliers (Hormiga et al., 2011). The location of a startup can also impact the possibility of partnership. Being located in close proximity to key markets or industry players can provide valuable networking opportunities and help to leverage network knowledge. A very clear example is Silicon Valley (Hormiga et al., 2011).

There are many studies try to address the internationalization of a firm located in a small country, one very famous study develop what is known as uppsala model (Vahlne & Johanson, 2017), the model suggests the high need for internationalization when operating in a small country and suggests to do so incrementally, as the cost and the risk is too high to understand the foreign market needs and the foreign market culture, and to get good knowledge about the legislation the model suggest to make small steps. We should note that the uppsala model was developed for manufacturing firms, so may or may not be valid for the Tech industry.

Vahlne & Johanson, (2017) argue that firms increase their commitment to foreign markets as they acquire more knowledge about those markets, and that such knowledge is developed through experiential learning and interaction with foreign customers and partners. The model also emphasizes the role of external factors, such as market conditions and government policies, in shaping firms' internationalization trajectories.

All of that means a new startup in a small country has barriers to enter the foreign external market, and their knowledge of the external market is a downside for the extension of the business. Despite this difficulty, there are new technical facility to enter a new market, leveraging local resources and scale the business to achieve global growth, Oviatt and McDugall (1994) defined a new term the international new ventures (INV) as a new firm that try to use local resources as competitive advantages to achieve international sale.

The main resource for the INV is knowledge, and as resource-based theory by Barney (1991), suggest that the resource should be unique, and therefore the new Tech startup might face a strong difficulty to keep their knowledge resource in the new market and maintain sustainable competition. Rialp and Knight (2005) develop a new version of the resource-based theory, focusing more on the resources to succeed in internationalization.

(Vahlne & Johanson, 2017) suggest starting with the close nearby market, like going to Finland, Denmark and Norway first, and then to the European market, and then finally the US and global market. Trying to grow and extend the business to include more geographical areas has several implications:

- Law and regulations: the foreign country might have specific requirements and policies, and even though the startup will try to be comply with the quality standard and requirements, still the entry to the new market specially for tech startup seen as disruptive, and the foreign country might try to support the national and traditional firms (Thornton, Campbell & Owusu 2019).
- Funding: the investors will try to be close to their investment and they prefer to invest in geographical clusters, like in Silicon Valley (Ibrahim, 2015)
- Macro economy: the micro economy is very important for the startup to survive, on other hand the macro economy is vital according to Box (2008), Firm survival rates in Sweden have been found to be affected by a variety of factors (Box, 2008), mainly by the macro economy more than the micro economy. Which means there is high influence of the country overall growth, and the local growth of the specific market that the startup serves, on the success rate and survival of the startup, (Box, 2008)

As illustrated and to summarize, the marketplace is very important for the startup, allowing access to the suppliers and customers, and micro and macro conditions allows a great impact on the startup, entering a new market is normal practice for the startup and that allow the startup to escape the small market, but it is too costly and risky. In the Swedish case, the Tech startup might struggle to expand beyond its borders. This can limit its potential for growth and make it difficult to attract the attention of international investors and lower the success rate of the startup.



## 4. Theoretical Framework

Since our research question revolves around understanding the impact of leadership on start-ups during the scaling up phase within selected factors, the theoretical framework can be visualized as a model where leadership characteristics and styles (transformational, transactional, situational etc.) directly influence startup success, mediated by financial and human capital factors. Leadership impacts financial capital through strategic resource management, investment attraction, driving financial performance and growth. Simultaneously, leadership affects human capital by fostering a conducive work environment, promoting skill development, and enhancing employee satisfaction and retention.

A simple theoretical framework can be taken from leadership effectiveness framework (Dubrin, 2016) to relate leader's characteristics with team member's characteristics and its context (internal and external environment) within selected factors to get desirable outcome which is leader's impact on overall start-up success. All these three elements influence each other and affect the leadership. Following is the construct of three factors of effective leadership to consider for the research.

<b>Leadership construct</b>	<b>Team members' construct</b>	<b>Context (internal and external environment) construct</b>
(Dubrin, 2016, Pride, 2018, Zaech & Baldegger, 2017, Skawińska & Zalewski, 2020, Gupta et al., 2004, Ziakis, 2022, Batistich, 2022, Balawi & Ayoub, 2022, Autio, 2016)	(Dubrin, 2016, Pride, 2018, Zaech & Baldegger, 2017, Skawińska & Zalewski, 2020, Gupta et al., 2004, Ziakis, 2022, Batistich, 2022, Balawi & Ayoub, 2022, Autio, 2016)	(Zajko, 2017, Bednár, Tarišková, 2017, Sevilla-Bernardo et al, 2022, Skawińska & Zalewski, 2020)
<ul style="list-style-type: none"> <li>-Leadership style</li> <li>-Vision and strategic orientation</li> <li>-Decision-making skills</li> <li>-Handling stressful situations</li> <li>-Risk taking</li> <li>-Communication skills</li> <li>-Adaptability and flexibility</li> <li>-Resilience</li> <li>-Team building and talent Management</li> <li>-Networking ability</li> <li>-Innovation and creativity</li> </ul>	<ul style="list-style-type: none"> <li>-Skill diversity</li> <li>-Experience and expertise</li> <li>-Commitment and motivation</li> <li>-Adaptability and flexibility</li> <li>-Collaboration and teamwork</li> <li>-Communication skills</li> <li>-Problem-solving ability</li> <li>-Risk taking</li> <li>-Cultural fit</li> <li>-Leadership potential</li> <li>-Resilience</li> <li>-Innovative mindset</li> <li>-Learning orientation</li> </ul>	<ul style="list-style-type: none"> <li>-Internal environment may include organizational culture and values, structure and processes and resources and capabilities</li> <li>-External environment may include market dynamics, regulatory and legal environment, economic conditions and social and cultural trends</li> </ul>

Table 6: Leadership effectiveness framework (Dubrin, 2016)

Conceptual framework that links leadership styles and practices with outcomes in two main areas are as follows which is considered for the research.

- Financial Capital: It includes revenue growth, profitability, investment attraction, and financial sustainability. (Engwall et al., 2018, Söderblom, 2012, Gompers, 1996, Bottazi et al., 2004, Barney 1991, Skawińska and Zalewski, 2020)
- Human Capital: Focus on employee satisfaction, talent retention, team productivity, innovation capability, and organizational culture. (Wright and McMahan, 1992, Skawińska and Zalewski, 2020, Parker, 2011, Barber, 1998, Mathis et al, 2017, Hitt et. al., 2012, Schein, 1985)

During the scaling up phase, dependent factors in a startup success such as human and financial capital which are influenced by the leadership, which is further affected by independent factors such as leadership attributes, followers’ attributes, and organizational context as mentioned in above points. We have tried to find out leadership impact on startup success by considering those dependent and independent factors by analyzing some examples in our research.

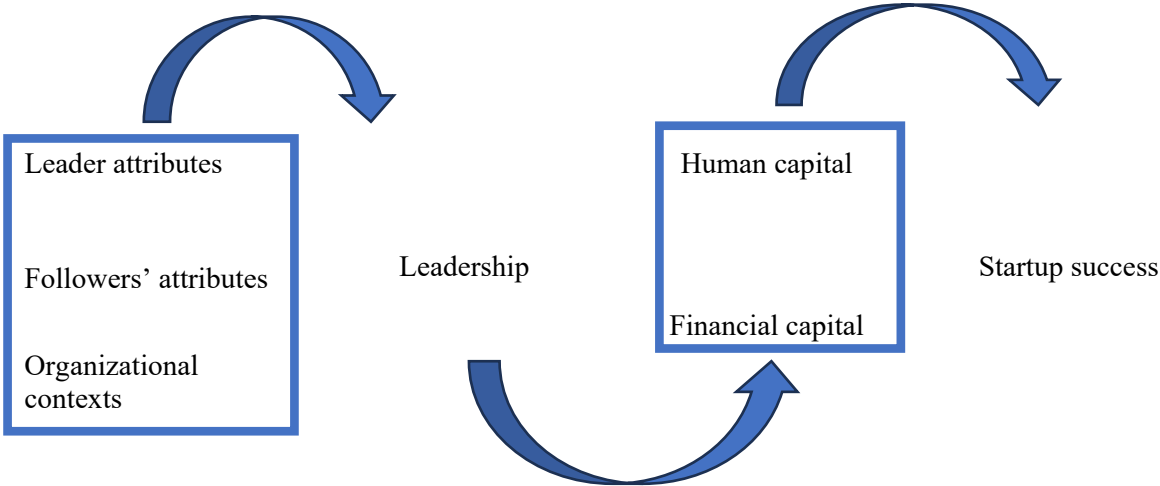


Figure 12: Preliminary research framework

## 5. Methodology

### 5.1 Research Method

The research is designed to use a qualitative research approach and do thematic analysis. Qualitative research provides a level of detail that goes beyond mere numbers. It is characterized by its flexible and iterative approach, beginning with broad research questions that evolve based on preliminary findings. It gives insight into the topic, capturing the complexities of human behavior and experiences and exploring the specific contexts. Qualitative research is adaptive in nature that allows researchers to adjust their methods as they gather more data, often leading to more tailored and precise research outcomes (Tracy, 2010).

Qualitative research helps to explore the leadership importance and influence and gain insights into the experiences, perceptions, and behaviors of leaders. We have selected thematic analysis to analyze the data because this is widely used in different such research and is very popular (Braun & Clarke, 2012). Themes are defined around the leadership, scaling up, human capital and financial capital from qualitative non-numerical data. This analysis method is selected because it helps to identify and analyze the themes which are helpful to explain our research questions using key features of the data. Thematic analysis gives a framework for organizing and reporting analytic observations. The themes can be repeated and the meanings around them come from words and texts people use during the interviews. These themes are further divided into codes which are the smallest unit of analysis to record important attributes and key insight of the data. The research question may evolve further depending on the themes which provides some flexibility. The code development throughout the process to ensure the best possible analysis at the end (Braun & Clarke, 2012).

## 5.2 Research Workflow

Below is the workflow used for the research.

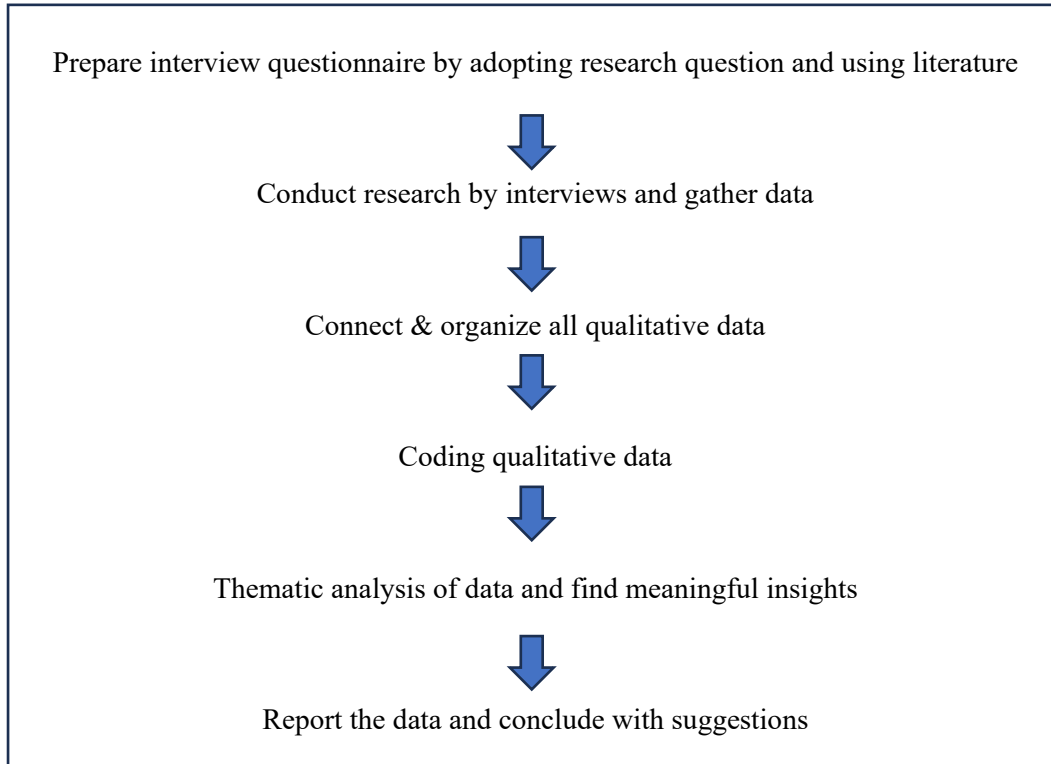


Figure13: Research workflow

We started from a topic that interests us and has a literature gap. Startup success through the scale up phase in the Swedish eco system was a very interesting topic for us and has a potential literature gap. We started from the research question and the scope and started reviewing the related literature. We found ourselves adapting the research question and the scope, through many iterations and through the whole process. We have selected the qualitative approach as it is the best to understand specific phenomena, and we used the themes analysis method, interviewing successful leaders in a startup that manage to navigate through all the challenges in the scale up phase. We laid out a table of codes, and examined the answers of the interviews, and made our analysis and conclusion.

## 5.3 Data Collection Method

The data is collected using semi-structured interviews. A questionnaire was sent to each interviewee before the interview to familiarize with the questions and have a productive open-end discussion on agreed timing. Interviews were conducted by phone and online meetings and answers were typed during the interviews. The data was put together and summarized in an excel format. The answers were kept precise to avoid overflow of data. It was difficult to find the right people for the interviews, so interviewees are selected based on available contacts who have founded a successful startup.

Selecting interviewees can be a complex task, involving the identification of suitable individuals within an organization and the decision of which organizations to approach. Additionally, interviewer bias can

impact the results, as interviewers may unintentionally choose subjects who align with or oppose the researcher’s perspective. This phenomenon is known as selection bias (Adhabi and Anozie, 2017). However, for this research, selection bias is not a significant concern, as the primary goal is to have some understanding of how the startup leaders navigate through scaling up phases, and the approach they used to tackle the financial and human capital problem in this critical phase of the startup.

To increase the likelihood of randomized selection, we proactively engaged with incubators and tech scale-ups, and also used our spread network where we had established both professional and personal connections. This approach helped identify potential candidates for interviews. we have sent 12 requests, 5 were rejected and we could make 6 interviews as in the table below.

<b>Interview Number</b>	<b>Role</b>	<b>Industry</b>	<b>Education</b>	<b>Interview date</b>	<b>Interview length (Mins)</b>
Interview 1	Co-founder/CTO	IT outsourcing and consulting	Bachelor of Science in Computer Science	2024-05-06	50
Interview 2	Founder/CEO	E-commerce	Bachelor of Science in Information Technology	2024-05-03	45
Interview 3	Co-Founder/CTO	Gaming Development	Bachelor of Science in Information Technology	2024-05-04	40
Interview 4	Founder/CTO	Web Development	Bachelor of Science in Computer Science	2024-05-05	50
Interview 5	Co-Founder / CEO	Drone and Satellite application	BS in Computer Science	2024-05-07	45
Interview 6	Founder / CEO	Telecom Consultant	PhD information Technology	2024-05-09	60

Table 7: List of interviewees

### 5.4 Ethical Considerations

We collect the data in interviewing the leaders and the CTO/CEOs, we emphasize the full data protection of the data shared with us. That includes first and foremost obtaining explicit consent from the interviewees to interview them and collect their data., and then by ensuring and sharing with them that the data will be confidential and that personal information, such as their names or their companies' details, will not be disclosed. Furthermore, we guarantee that the data collected will be used solely for the purpose of this master’s thesis, to better understand how leaders navigate scaling up challenges, including those related to financial and human capital.

### 5.5 Method of Analysis

Qualitative data is typically unstructured, as the interviewees answer the questions differently and they could give different perspectives to the same question. Our method was to use the thematic analysis (TA) process consisting of multiple phases for identifying, analyzing, and defining themes, using the

method made by Braun & Clarke (2006), as a main reference for our work. We did transcribe the interviews, and then coded them, and grouped them and tried to find the common themes.

## 5.6 Credibility and Validity

As the data volume is lower than in qualitative research compared to quantitative research, validity of the data might be a hard task, Ghauri et al. (2020) put four different types of possible validity for the qualitative research. Starting from the descriptive validity, which means do the interviewees share well descriptive data. As we have dedicated interviews and we have asked the questions directly we think we avoid collecting non descriptive data generated normally by writing answers. Interpretive validation refers to if we do interpret with non-bias the collected data, and that we keep in mind that we should avoid any pre-judgment when we do analyze the data.

## 6. Analysis

### 6.1 Themes and Coding (The Analytical Steps)

After we have conducted the interviews, we used the thematic analysis and followed the steps in one of best cited reference for the thematic analysis made by Braun & Clarke (2006), to code the data gathered in the interviews, and create categories and themes that allow us to interpret how leaders in success startup and in the scaling up phase overcome the challenges of short resources (human and financial capital) below the phases we took:

#### Phase 1: Familiarizing the data

In the initial phase of analysis, gaining a deep understanding of the data is important. This often requires meticulous reading to fully grasp every aspect. For verbal data such as interviews, transcription is reviewed to ensure they accurately capture and represent the data. This sets the foundation for a comprehensive thematic analysis, which progresses through various stages including coding and theme development (Braun & Clarke, 2006). In this step we dived deep into the data, and we gained a comprehensive understanding of its content, looking for meanings and patterns.

#### Phase 2: Generating initial codes

Phase 2 of data analysis begins after you have acquainted yourself with the data, at which point you start creating initial codes to pinpoint significant or pertinent features, influenced either directly by the data or by existing theoretical frameworks. This critical phase focuses on structuring the data into coherent groups, paving the way for the identification of broader themes that will underpin the interpretive analysis in the following stages (Braun & Clarke, 2006). In this phase, we start by thoroughly immersing ourselves in the data, gaining a deep understanding of its content. Once familiarized, we begin generating initial codes. These codes represent the basic elements or segments of the data that catch our attention and seem worth exploring further. Our approach involves systematically going through the entire dataset, identifying emerging patterns and themes. The main codes we found (Education, founder's position, decision-making, risk taking, leadership style, leadership changes through scaling up and so on). Detailed coding can be seen in the appendix b.

#### Phase 3: Searching for themes:

Phase 3 of data analysis starts after all the data has been coded and organized into an extensive list of codes. In this stage, attention shifts from specific codes to identifying broader themes by grouping related codes and aligning corresponding data extracts under themes and sub-themes. (Braun & Clarke, 2006). We found several themes and sub-themes, detailed themes and sub-themes can be seen in the appendix b.

In this step, we move from individual codes to broader themes. After initially coding and organizing all our data, this phase involves sorting these codes into potential themes and gathering all relevant coded data extracts within each theme. We followed the advice from Braun & Clarke (2006) of not abandoning any code or details and extracting all relevant possible code, we found sub themes that lead to the main themes: Leader Characteristic and Traits and Leadership style.

Below is the full code map, and the main 3 themes (Leader characteristic and traits, Leadership style and Team members and organizational context) highlighted with the gray color. Every one of those main themes has sub themes. Each theme is further divided by sub themes as shown in below mapping. We have taken most important sub-themes and related coding in this mapping. A full list of codes is mentioned in below table 9.

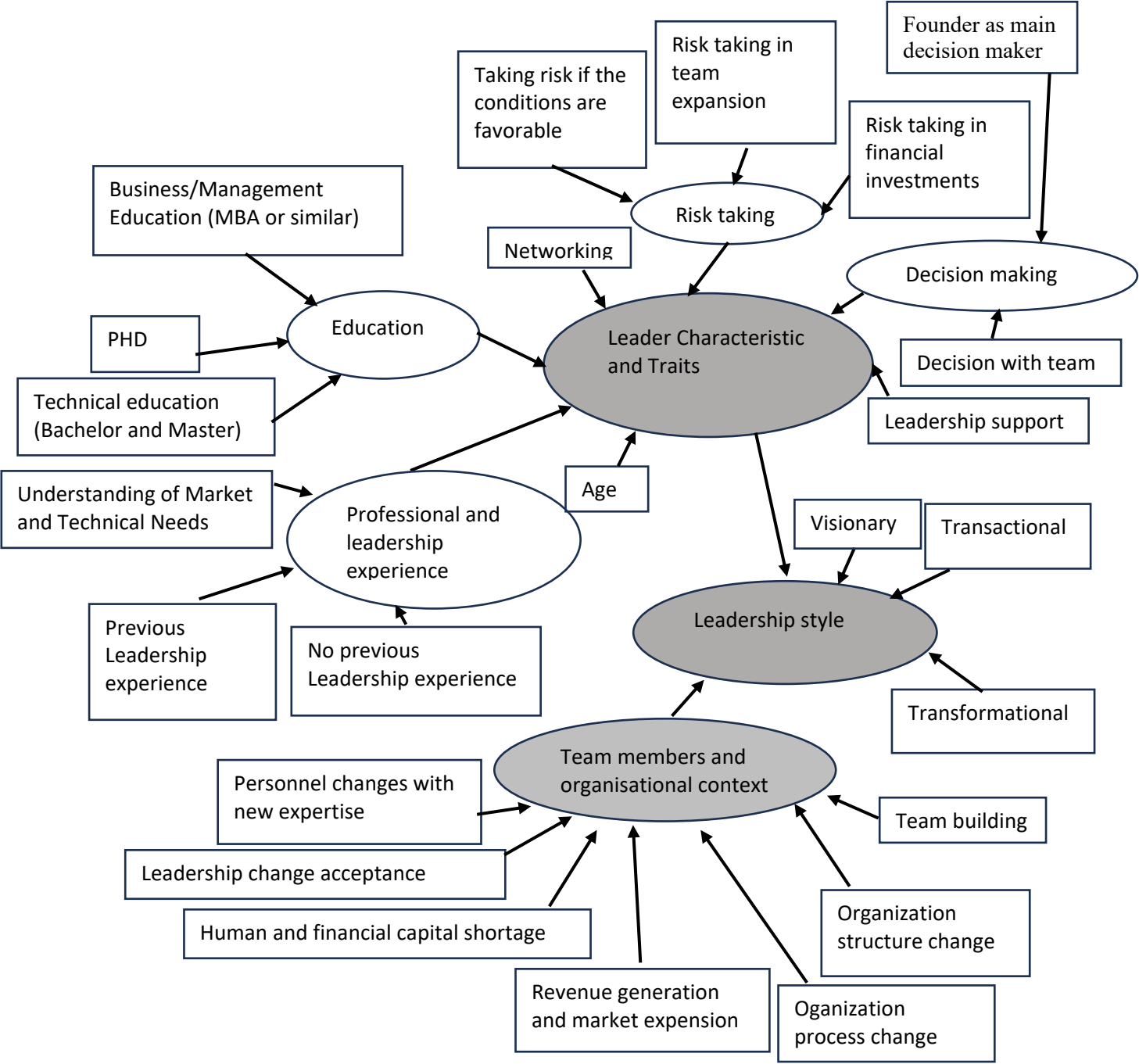


Figure 14: Themes and codes mapping



Phase 4 & 5: Reviewing and finalizing the themes:

Phase 4 of data analysis focuses on refining themes by evaluating their robustness and relevance, involving a rigorous review and adjustment of data extracts and the thematic map to ensure each theme accurately reflects and encapsulates the core meanings of the entire data set. Phase 5 of data analysis concludes with a finalized thematic map, where themes are defined and refined to succinctly capture distinct aspects of the data, organized into clear narratives, and given descriptive titles that align with the broader research narrative (Braun & Clarke, 2006).

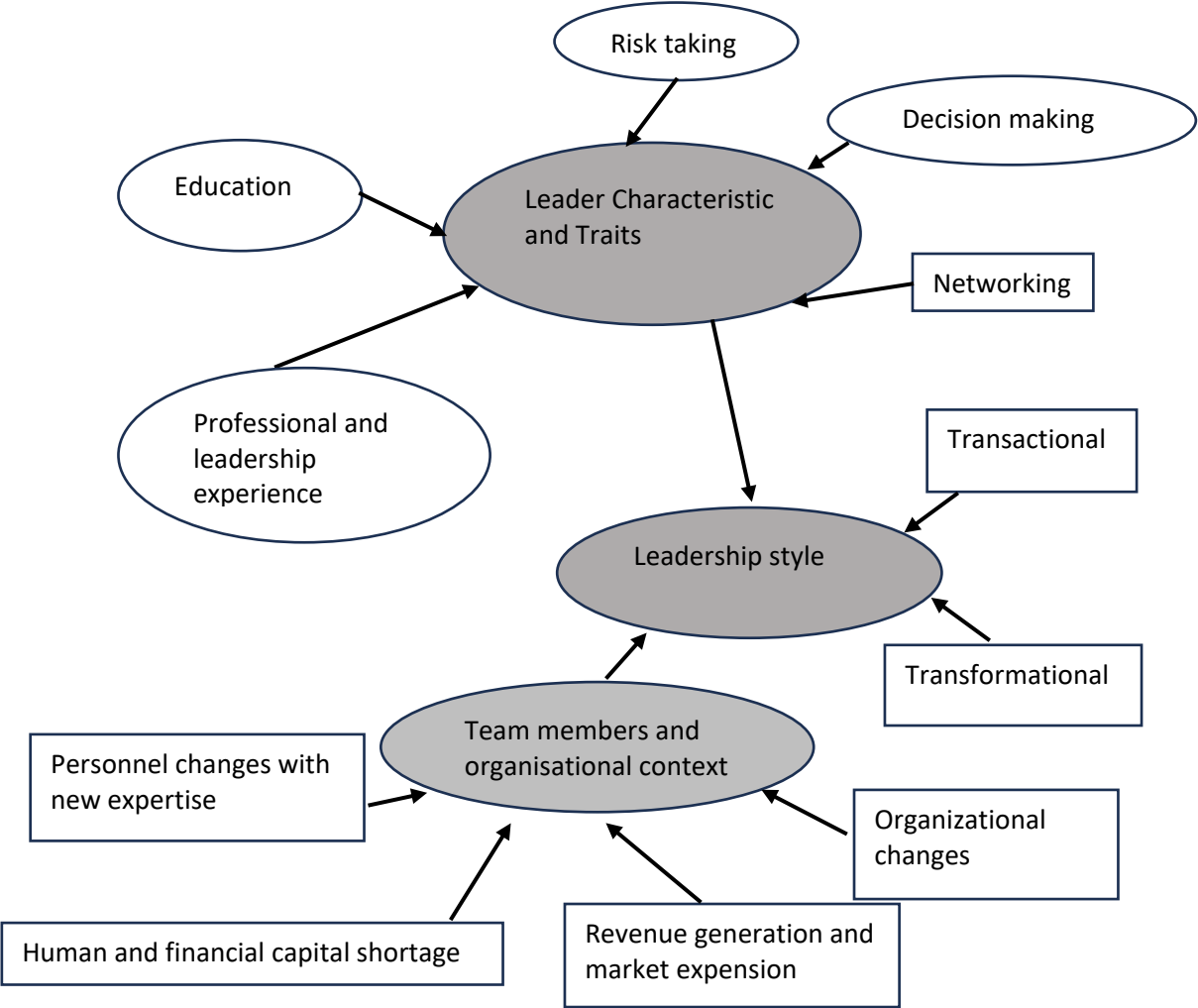


Figure 15: Final themes

Below we share the full code table we created when we did the thematic analysis

Theme	Category	Code
Leader Characteristic and Traits	Age impact on the leader in terms of maturity	Age relevant
		Age irrelevant
	Education impact on the success of start-up / technical background benefits product and management overall business	Technical Education (Bachelors/Masters)
		Business/Management Education (MBA or similar)
		PhD
	Founder's position, professional and leadership experience / Leaders role's importance in all aspects and experience in handling overall product and business related challenges	Leadership Roles (CEO, CTO, etc.)
		Founder involvement and company vision
		Resource allocation and team leadership
		Understanding of Market and Technical Needs
		No previous leadership experience
		Previous leadership experience
	Decision-Making can be authoritative/autocratic or collective depending on the situation	Founder/Co-founder/CEO as main decision maker
		Decisions made collaboratively with team
	Leadership knowledge and support can come both externally and internally to help in leading in all aspects	External leadership support
		Internal leadership support
		No leadership support
	Willing to take risk	Taking risk if the conditions are favorable
		Risk taking in team expansion
		Risk taking in financial investments
	Other leadership characteristics during scaling-up which are personal in nature	Helpful networking
		Adaptability
		Resilience
		Team building
		Decision making
		Strategic thinking and goal orientation
		Innovation
		Communication skills
Handling stressful situations		
Leadership style	Leadership style can be transactional and visionary before scaling up	Transactional
		Visionary
	Leadership style can vary during scaling	Servant
		Visionary
		Situational
		Transformational
		Combination (different leadership styles)
		Acceptance of leadership change from the team

	Acceptance of change in leadership style which helps to implement the actions	No feedback from the team
	Organizational changes for scaling up which are required and contributes towards leadership and success	Structural changes
		Process changes
		Resource allocation and expansion
		Marketing and team expansion
		Capital investment and financial management
Team members and Organizational context	Essential attributes of team members during scale-up which are personal in nature and effects the leadership	Flexibility and adaptability
		Technical expertise and experience
		Attention to detail
		Problem-solving
		Cultural and organizational fit
		Customer focus
		Strategic thinking
		Commitment
		Team building (Collaboration and Teamwork)
		Belief in company vision
	Personnel changes in the company during scaling up required for scaling up	New hirings
		Shift to specialists in different fields
		Expansion in technical and marketing Roles
	Pre-Scaling company conditions which affect leadership to take right actions for scaling up	Financial constraints
		Human capital shortage
		Lean operations
		Reinvestment of profits
	Motivations for scaling up which effects leadership to take right actions for scaling up	Revenue generation
		Market dynamics and expansion
		Market dynamics
Regulatory challenges		

Table 9: Themes and coding from interviews

## 6.2 Analysis of Leader and Follower Characteristic and Traits

**Age:** 3 from 6 interviewees mention age factor as relevant, and half mentioned as irrelevant. The insights received indicate a nuanced view of age's role in startup success, with various factors like experience, risk appetite, personal responsibilities, and strategic acumen playing pivotal roles. Also, younger founders do not see age as important as older founders around 40s who may be better equipped to handle complex organizational challenges due to greater maturity. However, this trait is considered less of importance.

Interviewee 1 said (*...I can see with age comes wisdom but with youth comes more risk taking which might be an advantage in a startup*)

**Education:** Nearly all responses highlight a strong technical education, such as degrees in computer science or information technology. This education is often credited with providing a necessary foundation for understanding the technical challenges of the product and its development. Several responses underscore that having a relevant technical degree helps in effectively managing technical teams and understanding the technological aspects of the business. Some founders also have formal education in business and finance, which they find beneficial in managing the broader challenges of scaling, such as financial management and organizational strategy. One response mentions achieving a PhD level, indicating a deep specialization that is advantageous for tech-focused startups. These insights suggest that while technical education provides the essential skills for dealing with product-related aspects of a startup, a combined knowledge of business management can significantly enhance a founder's ability to address the multifaceted challenges of scaling a business.

Interviewee 5 said (*...Having a technical education helped me understand the intricacies of our product and services, allowing me to work closely with the engineering and product teams. But what I missed is the hands on experience leading people and getting critical decision*)

From the previous research, studies also found a clear relation between the success of the startup and the education or what was called intellectual asset in the founders team, (Rotefoss & Kolvereid, 2005, Parker, 2011).

Many studies indicate education as one of the most important variables of startup success, of course all variables need to work together have a high probability of success in the new venture but education is one of the most important (Balawi & Ayoub, 2022). Rotefoss & Kolvereid (2005)

**Position, professional and leadership experience:** All respondents identified themselves in key leadership positions (e.g., CEO, CTO) during the scaling phase, underlining the importance of founders occupying top roles to effectively steer the company. The involvement of founders in leadership roles is considered crucial for maintaining dedication to the company's initial goals and for guiding the company towards its long-term vision. These insights suggest that the position held by founders during the scaling phase is immensely influential, as they are primarily responsible for strategic decisions, guiding the company's vision, managing resources, and maintaining team morale, all of which are critical for successful scaling.

Interviewee 1 said (*...For us, I believe the founders being in leadership positions was critical to guide the company towards a long-term vision and help tell the story*)

Several founders mentioned their previous roles helped them understand market gaps and customer expectations, which was pivotal in shaping their startups' offerings and strategies. These responses underscore the significant impact that previous professional experience in technology and related fields has on a founder's ability to successfully manage and scale a startup, particularly by leveraging technical expertise, market understanding, and professional discipline.

Four respondents mentioned not having prior leadership experience before running their startups. Despite this, they recognize either the potential benefits of such experience or note how other learning

experiences have compensated. Two respondents had leadership roles before, such as a Technical Team Lead, which they found beneficial for managing teams and addressing scaling challenges.

Interviewee 3 said *((I had leadership experience of Technical Team Lead in previous companies. It had helped me a lot to manage teams and understand their needs))*

The responses illustrate the mixed perspectives on the necessity and impact of leadership experience for startup scaling, with a general agreement that while not indispensable, previous leadership experience can significantly ease the scaling process by providing insights into team management and strategic oversight.

In previous leadership studies, it's been found that the success of a startup relies heavily on the effective leadership of its founder. This has become a crucial factor in the development of successful organizations. The leadership style adopted also plays a significant role in overcoming both internal and external challenges to achieve the set goals (Skawińska & Zalewski, 2020)

**Willing to take risks:** The majority of responses indicated a readiness to take significant risks, especially regarding financial and human resources. This included investing personal time and savings, reinvesting in the business, and hiring more staff. One response mentioned that while the company is generally risk-averse, they took opportunistic risks when the conditions were highly favorable. These responses indicate that while one respondent leaned towards a cautious approach, others were more open to taking considerable risks to ensure the growth and scaling of their business. This willingness to engage with risk, especially in critical areas such as financial investments and team expansion, is a common trait observed among entrepreneurs aiming to scale their businesses.

Interviewee 1 said *((We have, but in general I'd say we're a more risk averse company. We've avoided making very large bets, many of our riskier moves were opportunistic because the risk and cost was greatly in our favor.))*<sup>7</sup>

**Decision making:** Based on the Data we collected, the decision through the process of scaling up was very important, so we see 65% of the leaders and Co-founder answered that they take their decision in this critical phase very centrally (without involving too much the team and the decision was made from the top level), 35% did have the decisions with the support of the team.

The Interviewee 6 said *(( As a CEO, I held the primary responsibility for making key decisions, but I did not make those decisions alone. in few cases i decided my self, for critical decision as i am the accountable person for the decision of my startup))*

Four respondents indicated that either founder or co-founder was the primary person managing and making critical decisions, though they often involved the team. This includes making key strategic

decisions independently while being open to team discussions. Despite some leaders being the primary decision-makers, two responses highlighted a collaborative approach where the team significantly contributed to the decision-making process. Decision making is also considered a major factor by two respondents for their success.

Interviewee 5 said (*...in a few cases i decided for myself, for critical decision as i am the accountable person for the decision of my startup but in many other decisions during the scaling phase the decision was highly collaborative*)

That aligned with previous studies, in the beginning of the startup the leaders is more of a bureaucratic leadership style where decisions were made top down, specially for the important and critical decisions (DuBrin, 2016).

**Helpful networking:** Four respondents cited that their networks were instrumental in providing both financial resources (like early investors) and human capital (like finding talented team members) as well as new clients. One respondent noted that while their network did not notably aid in financial capital, it was crucial for acquiring human resources. One response highlighted that their network did not contribute to the scaling process, indicating either a lack of a strong network or the specific circumstances where networking wasn't beneficial. This variety in responses underscores the different roles that professional networks can play in a company's expansion phase, particularly in acquiring necessary resources and connections to facilitate growth.

Interviewee 1 said (*My network provided access to a pool of talented individuals with diverse skills and expertise. This was particularly valuable when we needed to expand our team quickly to support growth*)

### 6.3 Analysis of Leadership Styles and Follower Relationship

**Leadership style before and during the scaling up:** Transactional style was prevalent before scaling, focusing on immediate responses and adaptations based on customer feedback and market fit. We find this aligns with previous research, in the early phase of the startup, leaders could use transactional leadership style focused on goals. Leaders focus on planning and execution (DuBrin, 2016).

Interviewee 1 said (*Early on we were fairly transactional in the sense of just trying to find market fit and being very reactive to customer feedback. We learned when starting to scale up the business we could end up chasing lots of cool ideas and needed to start to develop our mission and vision and stay true to it. While we're much different than our early startup days in this sense, we continue to find we need to focus even more on fewer things that we do very successfully.*)

Visionary leadership appears both before and during scaling, indicating a consistent focus on long-term goals and direction throughout the growth process.

Interviewee 2 said (*As a small startup, my main task as a leader was to set the goals and chase the vision where I want to see the company in coming years*)

Transformational leadership becomes notably more common during the scaling up phase, reflecting an emphasis on inspiring employees and fostering a culture of growth and change. Then Transformational leadership evolved from Transactional leadership, emphasizing the close collaboration between leaders and followers to achieve a shared purpose (Gupta et al., 2004), fostering team spirit and emphasizing the importance of qualitative work (DuBrin, 2016).

Interviewee 3 said (*We encourage employees to learn and grow together as a team.*)

The transition to more situational and servant leadership during scaling up indicates a greater adaptability and focus on empowering and supporting teams. This analysis underscores how leadership styles can evolve from more directive or reactive approaches (like transactional) to more visionary and transformational strategies as organizations move from the startup phase to scale-up, aligning leadership with the growing complexities and opportunities of the organization's development.

As startups mature, there's a shift in leadership style from transformational to transactional again, where employees are expected to align more with the team and organizational values rather than solely the founder's traits (Baldegger & Gast, 2016).

**Team building:** it is mentioned twice which recognizes their role in creating a cohesive team capable of meeting the demands of expansion and vital for making informed choices under pressure and maintaining stability during critical periods.

Interviewee 4 said (*...we are successful. Building right team with correct skill set, making correct decisions but also handle difficult situations and networking*)

These responses suggest that a variety of leadership characteristics are perceived as integral to successfully meeting scaling-up goals, with particular emphasis on risk taking, networking and adaptability and resilience.

**Personnel changes during scaling up:** All companies did new hirings during scaling up. Four respondents highlighted a transition from employees who were generalists, capable of handling multiple roles and thriving in uncertainty, to needing specialists with specific skills as the business grew during and after scaling up. For example, three responses noted that there was a significant expansion in technical capacities and marketing efforts, which required hiring new staff with those particular skills.

Interviewee 1 said (*...There are people who are right during the early stages, willing to wear many hats, do well with uncertainty. As you grow and scale, the needs become different and many of those people don't scale with the business. Different personalities and skills are needed.*)

This array of responses illustrates the complex nature of personnel management during scaling up, where companies might need to realign their workforce to better suit the new challenges and opportunities presented by expanded operations.

**Acceptance of change in leadership style:** Positive feedback from team members suggest motivation and opportunities for learning and growth, reflecting well on those leaders' styles. Some leaders reported receiving no feedback, which suggests either a lack of feedback mechanisms or a culture where feedback is not routinely sought or offered. There is a notable instance from where feedback on the lack of clarity regarding priorities led to an acknowledgment of the need for more focus.

Interviewee 5 said *((This is one of my big weaknesses, I did not allow good effort for the feedback.))*

This analysis highlights the diversity in how teams respond to leadership and adapt within their roles, underscoring the importance of feedback in leadership development and team dynamics.

#### 6.4 Analysis of Organizational context

**Pre scaling conditions, and motivations for scaling up:** Four responses emphasized financial constraints or careful management of finances before scaling. Companies either faced limitations in financial resources or strategically managed their finances through careful investment or reinvestment of profits. Four responses noted a shortage of human capital, pointing out issues like limited team size or the challenge of attracting talented employees with limited resources. Companies needed to find creative solutions to expand their workforce or to ensure adequate staffing for scaling. These responses underscore that before scaling, companies commonly face significant challenges related to maintaining a balance between human and financial capital.

Interviewee 6 said *((Before scaling up, the company faced typical startup challenges in terms of limited resources and capacity. Addressing the gaps in human and financial capital was key to ensuring a smooth scaling process and positioning the company for sustainable growth and for a good scaling up))*

All the interviewees shared their experience having a shortage in human and financial capital during the scale up period, and the motivation for scaling up was mainly for striving for revenue generation and to have more stable financial in a very critical period of the startup life. The main motivation to strive for scaling up comes from revenue generation. This is the most frequently cited reason for scaling up, indicating a primary focus on increasing income sources and financial stability. Market expansion is considered the second most important reason for scaling up. Scaling up is often pursued to establish or expand presence in new or growing markets, which is viewed as a strategic move to capture larger market shares. These insights demonstrate that while revenue generation remains a central motive, scaling up is also significantly affected by strategic considerations related to market positioning and external factors such as regulatory environments and market dynamics.

Interviewee 6 said *((The main reasons for scaling up our business were primarily revenue generation. That was the key motivator for scaling up, by expanding our offerings and reaching new markets, we aimed to grow our income sources and strengthen our financial stability))*.

**Organizational changes:** Many organizational changes were indicated from the answers of the interviewees especially during the scaling up phase, the most occurring ones are the structural, process, and resource allocation changes. Four responses indicated that changes to the company's structure were necessary, such as adjusting the organizational hierarchy or reshaping team



configurations to better align with growth goals. Three responses highlighted the need to streamline or overhaul processes to support scaling, whether these were operational processes, go-to-market strategies, or customer engagement methods. Three founders mentioned enhancing their resource base, which included increasing financial resources through capital investment and reallocating these resources strategically. Two respondents emphasized the importance of building out dedicated teams, particularly in marketing, to support expanded operations and to reach a broader customer base. Two responses pointed out that scaling involved significant financial investments, which sometimes initially led to profitability challenges as the businesses tried to implement scalable strategies.

Those three main changes have together 75% of the total changes mentioned from all interviewees, resource allocation changes were very important to adjust with the new dynamic of the startup when scaling up, and the processes and organizational structure move hand in hand with adapting to the new dynamic. These insights underscore that scaling a business requires multifaceted adjustments to an organization's structure, processes, and resources. Effective scaling, as suggested by the responses, involves not just expanding the size of the team and the office but also strategically enhancing the company's internal systems and capabilities to support sustainable growth.

Interviewee 2 mentioned the difficulty of having the right amount of human capital (*There is always a shortage of human capital so had to find resources beyond local market.*)

Interviewee 6 said (*Addressing the gaps in human and financial capital was key to ensuring a smooth scaling process and positioning the company for sustainable growth and for a good scaling up*)

Interviewee 1 said (*Our business is creating a new market, so we saw scaling up the business required process changes and also we face many regulatory challenges as governments work to define rules around*)

## 7. Discussion and Conclusion

In this study, we focused on the critical factors influencing leadership during the scaling phase. Our aim was to illuminate how leadership dynamics navigate these challenges during the pivotal scale-up phase in contemporary startups. Throughout our investigation, we referenced literature emphasizing the multifaceted nature of startup success (Zajko, 2017; Bednár & Tarišková, 2017; Sevilla-Bernardo et al., 2022), underscoring the importance of examining various internal and external factors faced by a leader. Central to our inquiry was the recognition that the conduct of leaders plays a pivotal role in shaping the trajectory of new ventures, with leadership styles and personal attributes exerting significant influence on their success. Our focus remained tightly bound to leadership dynamics during the scale-up phase, particularly in tackling two main problems: financial capital and human capital. The findings from our qualitative analysis offer rich insights into the leadership dynamics and organizational adaptations during the scale-up phase of successful startups and how they are influenced by team members' attributes and organizational context (internal and external factors).

Our research has provided valuable insights into the significant role of leadership in scaling tech startups, answering the research question of how leaders impact the success of tech startups in overcoming various challenges during the critical phase of scaling up. The main findings from this study are summarized as follows:

### 1. Critical Role of Leadership:

The study reinforces the pivotal role of leadership during the scaling-up phase of tech startups. The results align with previous literature on the importance of leaders in startup success (DuBrin, 2016; Skawińska & Zalewski, 2020; Zaech & Baldegger, 2017). The study not only confirms the importance of leadership but also presents empirical results showing how effective leadership is instrumental in navigating the complex challenges associated with scaling, such as financial constraints and talent acquisition. Leaders who possess a combination of technical expertise and adaptive leadership styles are better equipped to guide their startups through this critical phase.

### 2. Leadership Characteristics and Attributes:

Successful startup leaders often exhibit specific personal attributes and professional backgrounds that contribute to their ability to scale their ventures, aligning with Balawi & Ayoub (2022). Key characteristics found in our study include education, professional experience, risk-taking, decision-making, and networking. These are pivotal in navigating scaling challenges, and these results agree with findings from Skawińska & Zalewski (2020). Our study finds that a strong technical education is a critical foundation for understanding and leading product development and technical teams. However, business and finance education also plays a vital role in managing broader operational challenges. Zaech & Baldegger (2017) described the importance of leadership education which is in line with our findings with addition to technical knowledge. During the scale-up phase, centralized decision-making often dominates, with leaders taking primary responsibility for major decisions. This is confirmed by Hmieleski, Cole, & Baron (2011) who mentioned that decision-making at higher management level is important than lower level because it is more effective. However, involving teams in decision-making processes can enhance adaptability and foster a more inclusive organizational culture. Our data revealed a dual approach to decision-making during the scale-up phase, with 65% of leaders opting for centralized decision-making and 35% involving their teams in decision-making processes. Developing adaptive leadership skills and promoting inclusive decision-making processes can be more effective as organizations grow and face new challenges. Risk-taking and experience are also considered key characteristics in our research confirmed by Zaech &

Baldegger (2017) that a leader faces risk to find new opportunities. Having a good network is considered important as mentioned by Pride (2018) in his book.

### 3. Evolving Leadership Styles:

The findings indicate that leadership styles evolve during the scaling-up phase, aligning with previous studies that acknowledge the importance of changing leadership styles during different periods of an organization (Baldegger & Gast, 2016; Zaech & Baldegger, 2017; Ensley et al., 2006). Our study provides more insight by focusing on startups and the scaling-up period. We found that leadership styles evolve during scaling, transitioning from transactional to visionary and transformational approaches. This evolution reflects a shift towards more empowering and adaptive leadership.

### 4. Team Members and Organizational Adaptations:

During scaling up, startups undergo significant organizational changes, particularly in structure, processes, and resource allocation. Our results agree with previous research (Zajko, 2017; Bednár & Tarišková, 2017; Sevilla-Bernardo et al., 2022; Skawińska & Zalewski, 2020) and (DuBrin, 2016) book on the influence of team members and organization on the leader. Moreover, our study finds that startups should focus on recruiting and developing talent that not only fits immediate needs but also aligns with long-term strategic goals, ensuring that team members can adapt to changing roles and responsibilities. The transition from generalists to specialists is common as startups scale, reflecting the need for deeper expertise in areas like technology and marketing. Changes in structure, processes, and resource allocation are essential to support growth. Startups should anticipate these needs early and plan for flexibility in organizational design and resource management, allowing for rapid adaptation to growth demands without sacrificing operational efficiency. Early investment in strategic financial planning and human resources is critical for a smooth scaling process. Startups that proactively secure funding routes and set up scalable operational processes early are better prepared to handle the turbulence associated with rapid growth.

## 7.1 Limitations

This thesis, while contributing valuable insights into the role of leadership in the scaling-up phase of tech startups, is subject to several limitations:

### 1. Limited Access to a Large Pool of Successful Leaders:

Although we interviewed six leaders from successful tech startups, which provides a good representation of leadership perspectives in this context, the sample size remains relatively small. Given the competitive and often secretive nature of the tech industry, many leaders are reluctant to share detailed insights about their strategies and challenges. This limitation affected the diversity of perspectives and may impact the generalizability of the findings.

### 2. Scope of Addressing Challenging Factors Separately:

The study focused on the overarching role of leadership in navigating the scaling-up phase, but it did not delve deeply into how leaders address each challenging factor individually. Factors such as financial constraints, talent acquisition, market competition, and technological advancements are complex and multifaceted. The holistic approach adopted in this thesis might have oversimplified the intricate strategies leaders employ to tackle each specific challenge, thus limiting the granularity of the findings.

### 3. Variability Across Different Tech Sectors:

Although the research aimed to focus on the tech industry, we interviewed leaders from tech startups serving different sectors, including e-commerce, web development, telecom, gaming, outsourcing, and consulting. While this provided a diverse range of insights, it also introduced variability that may not entirely represent the tech industry. The distinct characteristics and dynamics of other tech sectors might not have been fully captured, thus limiting the applicability of the findings to all possible tech industries.

### 4. Consideration of limited startup challenges of financial capital and human capital

Our study focused on the impact of leadership on startup success, specifically considering two critical factors: financial capital and human capital. However, it's important to recognize that many other success factors also play vital roles in a startup's success. These include a scalable business model, a strong product-market fit, and continuous innovations to meet customer and market demands. Each of these factors presents unique challenges that leaders must overcome to achieve a successful scale-up phase. Consequently, leaders may be impacted differently by these challenges and may require a diverse set of expertise and skills to effectively address them.

## 7.2 Conclusion

In conclusion, this study has shed light on the critical role of leadership during the scaling phase of tech startups. By examining the dynamic interplay of leadership styles, personal attributes, team dynamics, and organizational adaptations, we have provided a nuanced understanding of how leaders navigate the challenges of scaling up.

Future research should focus on expanding the sample size, exploring individual challenging factors in greater depth, and maintaining a strict industry focus to further validate and refine these insights.

Our thematic analysis reveals insights into the complexities and multi-faceted approach required for scaling startups, highlighting the importance of founder's leadership characteristics, team dynamics, leadership styles, and organizational adaptations necessary for successful growth. This study hints that no leader is perfect, and leadership is an evolving process in a startup through its different stages. Overall, the success of scaling a startup seems to hinge on a combination of strong leadership, strategic team development, and organizational agility. Future strategies should focus on enhancing these areas to build resilient and adaptable businesses capable of thriving in dynamic market conditions.

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## 9. Appendix A: Interview questionnaire

**Name:**

**Role:**

**Interview date:**

No.	a. Personal information	Answer
a1	What is your age? Does the age of the founders influence a startup's success during the scaling phase?	Please comment
a2	What was your education level during the scaling phase? Do you have a technical or management education? Does the education (such as bachelors or masters degree or any certification) of the founder affect the success of a startup during its scaling phase?	Please comment
a3	What was your position in the start-up during the scaling phase? Does the founder's position have an importance during the scaling phase and how does it influence?	Please comment
a4	What was your previous professional experience during the scaling phase, and does it have an impact on your current success?	Please comment
a5	Do you have any previous leadership experience in running a start-up? Is leadership experience important for scaling up?	Please comment
	<b>b. Company information</b>	<b>Answer</b>
b1	Who was the main person managing the scaling up process and who was the main decision maker? Were the decisions made during the scaling up phase alone or together with the team?	Please comment
b2	Were there any changes needed in the organization before scaling up the business? If yes, which changes (structures, processes, resources, capabilities etc) were made and were they effective especially on human and financial capital?	Please comment



b3	What was the company's situation before scaling up, especially in human and financial capital?	Please comment
b4	Which were the main reasons (revenue generation, market share etc.) to scale up the business and was it affected by other factors such as social and cultural trends, market dynamics, regulatory environment etc.?	Please comment
	<b>c. Leadership and Followers information</b>	
c1	Was there any leadership support available inside or outside of the company? If yes, from whom?	Please comment
c2	What was the leadership style (visionary, transformational, transactional, democratic, situational, servant etc.) before scaling up and during the scaling up phase?	Please comment
c3	What was the feedback from your team members on your leadership style and did they also make changes to adjust to this?	Please comment
c4	Were you ready to take risks if needed to scale up especially in human and financial capital factors?	Please comment
c5	Did your network help in scaling up especially in humane and financial capital?	Please comment
c6	Did you make any changes in personnel and what type of personnel were hired or left?	Please comment
c7	Which team members' attributes were most important during the scaling up phase? Please mention a few.	Please comment
c7	Do you consider yourself successful in meeting scaling-up goals, especially human and financial capital? Which major leadership characteristics helped you to scale up successfully?	Please comment
c8	Leadership wise, what have you done differently before or during scaling up?	Please comment