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ESTABLISHING STRONGER STARTUP FOUNDATIONS: TRAINABLE FOUNDER ATTRIBUTES FOR ENHANCING FOUNDER PREPAREDNESS

By:

Erdem Güngör

Supervisor:

Junior Lecturer & Junior Researcher Piia Vettik-Leemet

Chair of Entrepreneurship

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I have written this master's thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

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Abstract

Establishing a strong foundation for a startup is vital for its survival and growth. The success of these ventures often hinges on the early decisions and qualities of their founders. While several factors contribute to the robustness of startup foundations, certain founder attributes stand out as particularly influential. This study examines the critical role of trainable founder attributes in establishing strong startup foundations. Recognising the pivotal influence of founders' skills, capabilities, and competencies, this research specifically investigates certain trainable attributes that are associated with common startup failure reasons, in relation to shaping a startup's trajectory, foundational path, and longevity. Where:

Skills: Learned abilities that allow a founder to perform specific tasks with efficiency and precision.
Capabilities: The integration of knowledge, skills, and behaviour that enables a founder to perform tasks successfully and effectively in various situations, applying abilities in practical contexts.
Competencies: The overall capacity of a founder to combine different skills and capabilities to achieve goals and adapt to changing circumstances.

Employing a mixed-methods approach, this research integrates a systematic literature review with semi-structured interviews involving participants from the startup ecosystem, including founders, investors, and industry experts. It emphasises the importance of enhancing founder preparedness and effectiveness by concentrating on developing these crucial attributes, thereby underlining the essential role of founder preparedness in startup development.

While this study recognises the challenges inherent in expecting a single founder to train and master all the attributes highlighted herein, it emphasises the critical importance for founders to possess a combination of these attributes internally. Additionally, it is essential for founders to strategically address any gaps in their skills, capabilities, and competencies, whether through personal development, acquiring these attributes externally, or assembling a complementary founding team. This strategic approach ensures that the collective capabilities cover the full spectrum of necessary attributes, thereby laying a stronger and more comprehensive foundation for the startups.

The literature review reveals a recurring theme: Startup failures often stem from a deficiency in certain founder skills, capabilities, and competencies that are indeed trainable. Possessing these attributes is essential for establishing stronger foundations for startups, where the strong foundation is defined as the founders possessing the relevant attributes highlighted in this study, crucially elevating the startups' chances of survival, particularly during the critical early stages of development. These critical attributes span various areas, including but not limited to Problem Identification, Solution Ideation, Execution and Development, Business and Operations, Financial Understanding, Network and Stakeholder Engagement, Domain Knowledge and Market Understanding, Being Strategic and Analytical, Adaptability and Resilience, Learning from Feedback and Coachability, Learning from Experiences, and Openness to Newness. Their influence is profound as they equip founders with the necessary tools to navigate the complex and rapidly changing startup environment. This enables them to make well-informed decisions, identify the actual needs, adapt to market changes, and innovate continuously. Moreover, these trainable attributes enhance organisational resilience

and dynamic capabilities, allowing startups to overcome obstacles, seize growth opportunities, and sustain long-term viability.

Keywords: startup, founder, startup foundation, trainable founder attributes, startup development, entrepreneurship, startup survival, startup failures, founder competencies, founder skills, founder capabilities

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1. Introduction

In the contemporary landscape of global economics and societal development, startups have emerged as key actors, driving economic growth, innovation, and societal progress. Their unique position allows them to act as catalysts for technological advancements, introducing new, innovative, and novel products and services that challenge established market norms with agility and disruptive capabilities. This not only fosters a competitive market environment but creates substantial value for society, including job creation and economic diversification (Lovrincevic, 2022; Pigola et al., 2022). Despite their critical importance, a significant majority of startups face formidable challenges that lead to premature and high failure rates, negating their potential contributions. This stark reality highlights the necessity of understanding the factors leading to such outcomes and formulating strategies that could enhance startups' survival rates and growth potential. (Cantamessa et al., 2018).

The foundational early stages of a startup’s development are especially delicate and fraught with risk, demanding not just vision or idea ownership but a combination of unique qualities, competencies, and strategic insight from founders that critically influence the venture's trajectory (Kang, 2020). The founder's role is vital during this stage, as their competencies and preparedness significantly influence the startup's trajectory (Eesley et al., 2023). Founders are not just the idea owners but also the principal architects and the driving forces of their ventures, especially during the early stages. The founders play a critical role in defining the startup's path through their values, motivations, and personalities, which in turn shape the organisation's identity and structure (Zaech & Baldegger, 2017; Pigola et al., 2022; McCarthy, 2023). Research suggests that in the early stages of a startup, the founder naturally assumes a central and influential role, shaping the organisation's direction and success (Wasserman, 2016). Investors' valuation of the background and composition of the founder and team further highlights the significance of the founder's role in securing financial support (Cacciolatti et al., 2020). Additionally, the experience and knowledge of the founders are evident in the startups they establish, highlighting the criticality of their skills and capabilities in shaping the venture’s success (Hashai & Zahra, 2021). The effectiveness and growth potential of startups are influenced by a combination of factors, including the foundational idea, the quality of leadership, the robustness of the business model, and the composition of the founder team, as highlighted by Sevilla-Bernardo et al. (2022). The founders, particularly during the early stages of startup development, are at the centre of these factors.

Startups require diverse in-house competencies to achieve market success (Giardino & Abrahamsson, 2014; Kopera et al., 2018). The competencies and preparedness of founders are essential in navigating startups through the volatile early stages, highlighting the

importance of analysing factors contributing to failures and developing strategies to improve survival and growth prospects (Caliendo et al., 2019; Eesley et al., 2023). In the context of startup development, founders play a pivotal role in shaping the foundational elements of their ventures. Despite the recognised importance of startups and the foundational role of founders in their development, there exists a significant gap in research regarding the comprehensive influence of trainable founder attributes on startup processes, survival, and the ability to establish a strong foundation leading to positive outcomes. The existing literature lacks fully exploring the influence of these trainable attributes of founders—encompassing internal skills, capabilities, and competencies—on the startup development process. This gap is particularly notable given the critical role that these attributes play in enhancing a startup's resilience, survival and success potential, and influencing startup trajectories.

There is a scarcity of research that explicitly connects the development and refinement of the founder's trainable attributes with the subsequent effects on startup trajectories. Such a gap in the literature highlights the urgent need for a holistic examination of the interaction between trainable founder attributes and startup development processes. This research aims; first, to identify the trainable startup founder attributes that are associated with common startup failure reasons and, by extension, are influential to the survival, growth, and eventual success or failure of startups. And, second, to explore how to increase awareness of these trainable attributes and enhance the preparedness of the founders, consequently increasing the resilience of the startups. Addressing this gap is crucial for developing targeted interventions and resources that can empower founders to enhance their personal competencies and, by extension, strengthen their startups' foundations. Also, this research seeks not only to fill a crucial gap in the academic discourse but also to provide practical insights for founders, investors, and policymakers aiming to foster the growth of resilient and successful startups.

The research question at the centre of this study, “Which trainable attributes of startup founders are associated with common startup failure reasons?” seeks to unravel the essence of founder preparedness and its consequential influence on the startup's trajectory. The following research question, “How can the awareness and preparedness of startup founders be enhanced through the development of identified trainable attributes?” is aimed at exploring potential ways of equipping founders with the necessary skills, capabilities, and competencies to navigate the extremely uncertain and challenging stages of startup development effectively.

R.Q.1: Which trainable attributes of startup founders are associated with common startup failure reasons?

R.Q.2: How can the awareness and preparedness of startup founders be enhanced through the development of identified trainable attributes?

For the purpose of achieving the research aim and answering the research questions, the following research tasks were formulated:

- **To conduct a literature review** on startup founders, encompassing definitions, reasons for startup failure, and the establishment of strong foundations, focusing on the associations with founders.

- **To identify trainable founder attributes** that are associated with common reasons for startup failures and have the potential to influence the establishment of a strong foundation for startups based on insights from the literature and the interviews.
- **To design and conduct semi-structured interviews** with a diverse group of stakeholders, including startup founders, mentors, and investors, to gather firsthand insights on the importance and application of these attributes, as well as additional insights through their own experiences.
- **To perform a qualitative analysis** of the interview data to uncover patterns and insights related trainable founder attributes.
- **To compare interview findings with literature review results**, identifying overlaps, discrepancies, and new insights to enhance understanding of the role of founder attributes in startup development.
- **To develop a framework** detailing key trainable attributes for founders, derived from analysis and validated through stakeholder feedback, aimed at enhancing the preparedness of founders and establishing strong startup foundations.
- **To draft actionable guidelines** for founders, providing clear strategies for developing identified trainable attributes, including recommendations.
- **To discuss implications** of findings for various startup ecosystem stakeholders, suggesting how they can support founder development and contribute to startup success.
- **To conclude with recommendations for future research**, summarising key insights, acknowledging limitations, and proposing areas for further investigation into founder attributes and startup success.

This thesis is structured into 7 sections for clarity and comprehensive coverage of the topic. After the introduction, Section 2 provides the theoretical foundation for the identification and significance of specific trainable founder attributes, such as skills, capabilities, and competencies crucial for establishing strong startup foundations. Section 3, the theoretical framework, highlights proven good practices and methodologies accepted by the industry and successful startups. Section 4 details the methodology of the research, combining a thorough literature review with semi-structured interviews from various startup ecosystem stakeholders to ensure a more diverse perspective on the role of founder attributes in startup development. Section 5 presents the findings from the analysis, including the insights from interviews, highlighting founders' critical role in navigating known challenges during startup development and their associations with common failure reasons. Section 6 contains a detailed discussion, placing the findings within the broader context of existing research, insights from the interviews, and the author’s synthesis, and examines the theoretical and practical implications of the study. Section 7 concludes the thesis by summarising the main points and offering recommendations for founders, researchers, and policymakers. It also suggests directions for future research, emphasising the importance of continued exploration in the field of startup development from the founder's perspective.

2. Literature Review

2.1. Definitions of Startup and Startup Founder

The concept of a startup is multifaceted, embodying innovation, uncertainty, and a drive to disrupt existing market paradigms. Startups are distinguished from traditional business entities by their foundational objectives and operational methodologies. Aminova & Marchi (2021) elucidate that a startup is fundamentally a company born under conditions of high uncertainty, with its core mission centred on innovation. This innovation is aimed at introducing new products or services with the potential to disrupt the market, challenging established norms and processes. Unlike traditional corporations, startups are characterised by their deviation from conventional processes, embodying unique characteristics such as rapid prototyping and a culture of experimentation (Nguyen-Duc et al., 2017).

The essence of a startup has been captured in various definitions that highlight its dynamic and experimental nature. A widely accepted definition of a startup, as proposed by Ries (2011), characterises it as a human institution established to introduce a new product or service under conditions of high uncertainty (Wang et al., 2016). Similarly, another prevalent definition by Blank and Dorf describes a startup as a temporary organisation searching for a scalable, repeatable, and profitable business model (Lovrincevic, 2022). Skawińska and Zalewski (2020) define startups as young, innovative companies focused on research and development to address real-world problems, highlighting the importance of a compelling business model and a talented team. These definitions emphasise the dynamic and experimental nature of startups, highlighting their focus on innovation and growth amidst uncertain environments and conditions.

Startups operate under a paradigm markedly different from that of established companies, embracing flexibility and innovation over strict adherence to conventional business processes (Seppänen et al., 2017). Their journey is one of constant validation, engaging in customer development and product development processes to refine their business ideas in response to market feedback (Eesley et al., 2023). The drive behind startups extends beyond mere market participation; it's about creating value and instigating market disruptions (Rivera-Kempis et al., 2021). This drive necessitates a dynamic and experimental approach to business model innovation and value creation, setting startups apart from traditional business ventures (Ghezzi & Cavallo, 2020).

The path of a startup is laden with unique challenges, including limited resources, time constraints, and the imperative for rapid prototyping. This environment demands the ability to quickly iterate on ideas based on market feedback (Hokkanen et al., 2016). The ability of startups to adapt quickly to market feedback and pivot their strategies when necessary is crucial for their survival and growth (Nguyen-Duc et al., 2017).

Additionally, startups are known for their agility and ability to leverage strategic alliances to enhance their performance and pursue growth opportunities effectively (Cacciolatti et al., 2020). The success of startups is closely tied to factors such as organisational resilience, dynamic capabilities, and the leadership behaviour of founders, who play a pivotal role in navigating uncertainties and steering the startup towards growth and sustainability (Matos et al., 2022).

In the context of entrepreneurial ventures, the term “startup founder” denotes an individual or, collectively, a group of individuals who initiate and drive forward a business venture with the objective of developing and validating a scalable business model, typically with the aim of introducing a novel, innovative product, or service to the market under conditions of high uncertainty (Wang et al., 2016).

The essence of a startup, as described by Blank (2013), is that startups are not merely smaller versions of larger companies but are aimed at searching for repeatable and scalable business models, often driven by technology and innovation. Startup founders are characterised by their pursuit of innovative solutions and disruptive approaches to challenges, setting them apart from traditional entrepreneurs who operate within established market paradigms.

The role of a founder in a startup is distinct from other types of entrepreneurs and business owners due to the emphasis on innovative solutions, novel approaches to challenges, and the ability to navigate through uncertainty (Wasserman, 2016). Founders are often characterised by their vision, passion, and capabilities, which are crucial for the early stages of startup development (Wasserman, 2016). The role of a founder extends beyond mere initiation; it involves a deep engagement with all aspects of the business. The literature recognises that from customer development to product innovation, the founder's active participation is critical in shaping the startup's trajectory and ensuring its success (Eesley et al., 2023).

Moreover, the longevity and growth of a startup are significantly influenced by the founder's persistence and competencies, highlighting the importance of these attributes in overcoming obstacles and achieving sustained growth (Caliendo et al., 2019). Founders are faced with dilemmas that can potentially jeopardise their startups, highlighting the challenges and decision-making complexities that founders encounter throughout the startup development (Wasserman, 2012).

Startup founders distinguish themselves from traditional business owners through their relentless focus on innovation and disruption. Their mission often revolves around addressing unmet needs or creating new markets through innovative products, services, or business models that challenge existing market norms (McCarthy, 2023).

2.2. The Significance of Startups and the Phenomenon of Failure

Startups are increasingly acknowledged as critical drivers of growth in modern economies, affecting not just the economic landscape but also social dynamics and the trajectory of innovation. Their influence extends beyond traditional economic indicators, affecting social structures and accelerating technological progress. This broad impact highlights the crucial role startups play in shaping contemporary societies, industries, and economies.

In terms of economic importance, startups significantly contribute to job creation, stimulating economic growth by reducing unemployment rates and introducing economic dynamism through competition and market disruption (Pigola et al., 2022). They attract investment, both domestically and internationally, bringing additional capital into the economy and contributing to economic development (Eliakis et al., 2020). As startups grow and become profitable, they also contribute to tax revenues through corporate and income taxes, supporting public services and infrastructure development (Lovrincevic, 2022).

Socially, startups are instrumental in solving social problems and improving the quality of life through innovative products and services (Stam & Spigel, 2018). They empower communities by providing access to technology, education, and economic opportunities, particularly benefiting underserved or marginalised groups (Eesley et al., 2023). Moreover, the entrepreneurial culture promoted by startups values creativity, resilience, and innovation, influencing society at large and encouraging more individuals to pursue their ideas and solutions to problems (Koskinen, 2020).

In terms of innovation, startups are known for their rapid pace of innovation, often being at the forefront of technological advancements (Tripathi et al., 2019). Startups lead in driving breakthroughs across numerous sectors, especially those focused on technology such as artificial intelligence, biotechnology, renewable energy, and others, contributing to advancements, revolutionising industries, and improving societal welfare (Szathmári, 2024). Moreover, startups pioneer new business models, challenging conventional business practices and reshaping, changing how companies operate and deliver value to customers (McCarthy, 2023).

The contemporary business environment demands a paradigm shift from traditional profit-centric models towards strategies that emphasise value creation, sustainability, and societal and environmental well-being (Evans et al., 2017). In the current business environment, the transition towards sustainable and value-driven models requires founders to be better prepared to address challenges arising from profit-centric investment expectations. Business model innovation for sustainability is essential (Evans et al., 2017), particularly for startups seeking sustainable growth amidst traditional profit-oriented metrics (Kang, 2020). The significance of founder preparedness is heightened to navigate early development stages in alignment with societal and environmental objectives (Wang et al., 2016).

Scholars emphasise the need for startups to innovate their business models thoroughly for sustainability, underlining the importance of testing assumptions and validating business ideas for the longevity of startups (Ghezzi & Cavallo, 2020; Ghezzi, 2019). Founders are encouraged to enhance their dynamic capabilities within business networks to adapt to changing environments effectively.

The examination of startup failures provides insights crucial for understanding the complex dynamics that determine the survivability and success of new ventures. Startups often face failure due to various reasons, such as a lack of business knowledge within the technical team and hindering adaptability to technological advancements (Nefaie, 2023). Deficits in technical expertise, analytical thinking, and flexibility have also been identified as significant factors contributing to startup failures (Szathmári, 2024).

One salient factor contributing to startup failures, as identified by Cantamessa et al. (2018), is organisational challenges, including poor structure, team disharmony, and co-founder misalignment. The analysis emphasises the importance of a coherent organisational strategy and the need for alignment among team members and co-founders, pointing out that discrepancies in these areas can severely hinder a startup's ability to succeed.

Furthermore, Cantamessa et al. (2018) emphasise the absence or inadequacy of a business model, insufficient business development, the challenge of running out of cash, and the lack of product-market fit as primary reasons for startup failures. Utilising statistical analysis and

clustering methods, the study pinpoints lack of business development, ineffective marketing mix, limited customer base, and flawed business models as significant predictors of failure. This analysis complements the findings by Landström, Harirchi, and Åström (2012), who observed that reasons for startup failure evolve over time, with inexperience being a critical factor in early-stage failures and issues related to product-market fit and business models becoming more prevalent in later stages.

Cantamessa et al. (2018) also argue that while much of the literature focuses on successful startups, valuable lessons can be learned from failures. Factors contributing to these failures include pursuing systematic growth without proper evaluation of the startup's position and readiness for scaling, operating in a chaotic environment that leads to poor organisation and unclear roles, disharmony within the team, and disagreements between co-founders. Additionally, a lack of business development and commercial perspective, especially in highly technical teams, poses a significant risk, emphasising the necessity for a balanced approach that includes customer, sales, and profit growth strategies.

Startups are distinguished by their focus on innovative, high-tech products and their ambitions for aggressive scaling. These ventures operate under conditions of extreme resource limitation, making the balance between managerial strategies and product development a critical factor in their survival and success (Giardino et al., 2014). The study underlines the severe impact of a single failed project, which can result in the closure of the business, highlighting the existential precariousness of startups. Giardino et al. (2014) emphasise the importance of problem-solution fit and product-market fit, advocating for the integration of customer feedback and a strong emphasis on the strategic role of executives and managers. The lack of focus on achieving a problem-solution fit, coupled with a rush towards early profit maximisation and inadequate customer feedback, has been pinpointed as a critical misstep for startups (Giardino et al., 2014).

Additionally, the absence of key entrepreneurial characteristics within founding teams, such as motivation and risk evaluation, adversely affects the startups' success. Prioritising customer acquisition strategies over the discovery of a problem-solution fit leads to difficulties in building a sustainable customer base. The study advocates for systematic feedback from customers to enhance market understanding and adaptability (Giardino et al., 2014). The research emphasises the necessity of a learning-based approach to product development, advocating for quick iteration based on trial and error and a strong customer relationship to prevent the squandering of resources on unnecessary functionalities (Giardino et al., 2014). This approach aligns with Lean Startup methodologies (Ries, 2011), which stress the importance of minimal viable products (MVPs) and the capacity to pivot based on feedback and market needs. Giardino et al. (2014) conclude that early-stage startups often falter due to a failure to properly align their strategies with market needs and an inadequate focus on the learning processes necessary for successful product development. They recommend that startups adopt a customer-focused, iterative approach to product development, emphasising the need to validate business assumptions quickly and adapt based on customer feedback and market understanding.

Moreover, challenges like a lack of market understanding, insufficient financial resources, team management issues, and technology lag are typical contributors to startup failures in the early stages (Cantamessa et al., 2018; Seppänen et al., 2017; Eliakis et al., 2020; Aminova &

Marchi, 2021). Addressing these challenges through improved resource management, market understanding and research, and flexible business models can enhance the chances of startup success. The inability of startups to adapt and respond to market changes is another significant reason for their failures (Stam & Spigel, 2018). The success of startups is closely linked to meeting market needs and delivering value to customers rather than solely focusing on the products or concepts the founders wish to offer. A study suggests that focusing mainly on economic performance without considering social and environmental factors can lead to failure (Pillai, 2019). Founders of tech ventures often bring technology-related competencies, but there is a notable deficiency in market and management related competencies, which is reflected in common reasons for startup failures (Giardino & Abrahamsson, 2014). The inability of startups to adapt their business models and respond to market changes is also a significant reason for startup failures.

In their study, Szathmári et al. (2024) explore the factors contributing to such failures, focusing on the core competencies—or the lack of them—that determine the fate of entrepreneurial endeavours. They provide an analytical study to uncover the underlying reasons behind startup failures, focusing on the deficit in core competencies as a primary cause. This work stands on the shoulders of foundational definitions by Blank (2013), Bruyat and Julien (2001), and Kaczam et al. (2021), characterising startups as initial stages of entrepreneurial ventures in the quest for a repeatable and scalable business model amidst financial constraints. Central to their findings is the assertion that the failure of startups can often be traced back to a lack of specific core competencies among the founding or operational teams. Szathmári et al. (2024) emphasise the significance of core competencies in preventing startup failures, highlighting adaptability and customer-centric decision-making as pivotal. The study identifies thirteen competencies, with “Information-seeking” and “Customer service orientation” being the most frequently cited reasons for failure. This perspective aligns with the broader discourse on the importance of competencies for organisational success and adaptability. The authors present key competencies that are frequently overlooked yet pivotal in the startup's success or failure. The research presents specific competencies—namely Achievement orientation, Initiative, Conceptual thinking, Organizational awareness, and Developing others—as vital and often lacking in failed startups (Szathmári et al., 2024).

Startups often face challenges unique to their early-stage development, such as securing funding, attracting investors, and navigating the uncertainties of the market (Bernstein et al., 2014). The success of startups is influenced by factors like the founding team's experience, the speed of prototyping, and the ability to pivot based on user feedback (Onetti et al., 2018; Zaech & Baldegger, 2017).

Establishing a strong foundation can significantly influence the success or failure of the venture. The early stages of startups are crucial for laying the foundation for long-term success. One essential aspect of the early stages is the rapid verification of product-market fit. Achieving product-market fit is essential for long-term success. Failing to validate this fit early on can lead to wasted resources and missed opportunities, hindering growth potential and increasing the risk of failure (Bernstein et al., 2014). Nevertheless, the scarcity of resources and the high stakes associated with startup endeavours can present substantial obstacles.

Furthermore, startups must possess the agility to adapt swiftly to market dynamics and competitive pressures. Understanding the competitive landscape and being able to respond quickly to competitors' actions is crucial for startups. Failing to react appropriately to market changes or competitive threats can hinder a startup's growth prospects and undermine confidence in its ability to succeed. Additionally, startups often encounter difficulties in acquiring the necessary human capital and expertise to drive innovation and product development (Seppänen et al., 2017). Assembling a team with the appropriate knowledge, skills, and capabilities is essential for startups to develop a viable product and effectively navigate the challenges.

Moreover, startup founders may lack essential managerial and business development competencies, and profitability is frequently sacrificed to ensure survival and achieve rapid growth (Lovrincevic, 2022). Balancing these conflicting demands while maintaining motivation in the startup's vision and potential success poses a significant challenge that can impact the startup's long-term viability.

Picken (2017) describes the entrepreneurial venture lifecycle into four stages—startup, transition, scaling, and exit—each characterised by distinct challenges that the founding team must navigate. During the startup phase, the primary focus is on defining and validating the business concept, identifying market opportunities, developing the offering, and formulating a go-to-market strategy. This phase is critical for laying the groundwork for future growth, emphasising the importance of a solid foundation from the onset. This requires a deep understanding of the competitive environment and effective customer engagement strategies; understanding and satisfying the initial customers' needs is crucial for early market entry and long-term success.

Sevilla-Bernardo et al. (2022) provide a foundational analysis, identifying seven key success factors for startups: the idea, CEO leadership, business model, marketing approach, entrepreneurial team, funding, and market timing. Their research emphasises the importance of the business concept, market opportunities, and strategic alignment of company values as instrumental in navigating the entrepreneurial landscape. The complexity of entrepreneurship, involving the planning, initiation, and management of new ventures, is highlighted by Picken (2017), who stresses the necessity of defining and validating a business concept, understanding market opportunities, and crafting a compelling business model and marketing strategy. Rivera-Kempis et al. (2021) contribute to this discussion by listing 20 critical attributes for success, categorised into knowledge, skills, and attitudes and values, which enriches the understanding of startup dynamics, highlighting the significant influence of knowledge, autonomous learning and critical thinking for founders who wish to create a company.

The research by Camuffo et al. (2020) argues that entrepreneurs who adopt a systematic approach to decision-making—characterised by hypothesis formulation, rigorous experimentation, and the employment of valid metrics for evaluation—demonstrate superior performance outcomes compared to their counterparts relying on traditional heuristics. The authors compare the scientific approach against conventional decision-making heuristics, such as trial-and-error processes, Effectuation (Sarasvathy, 2001), thereby highlighting the enhanced inferential power and reduced incidence of both false positives and false negatives that the former method produces. Central to Camuffo et al.'s (2020) thesis is the notion that a

scientific approach facilitates a more nuanced and accurate selection of projects, increasing the likelihood of a founder's pivot to a more viable idea when necessary. This is highlighted by the application of techniques such as minimum viable product (MVP) tests and split (A/B) tests, which serve as empirical mechanisms for measuring customer interest and refining business propositions. Such methodologies are instrumental in establishing clear evaluation criteria and decision rules, enabling founders to make informed choices regarding the development, pivoting, or abandonment of a business idea based on grounded predictions and observed signals (Camuffo et al., 2020).

Factors such as organisational resilience and dynamic capabilities are identified as vital elements for startup survival and growth (Cantamessa et al., 2018; Stam & Spigel, 2018). Organisational resilience is the capacity of an organisation to anticipate, prevent, and mitigate potential adversity before it escalates, ensuring the organisation's existence and prosperity (Haase & Eberl 2019). Organisational resilience enables startups to adapt to changing environments and overcome setbacks, contributing to their long-term sustainability (Cantamessa et al., 2018). Dynamic capabilities refer to a firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Seppänen et al., 2017). Dynamic capabilities enable startups to better prepare for internal and external challenges under uncertainties, enhancing their adaptability and responsiveness (Pigola et al., 2022). Dynamic capabilities allow startups to respond effectively to market dynamics, innovate, and seize opportunities for growth (Stam & Spigel, 2018).

Acknowledging the distinctive challenges faced by startups, including limited resources, lack of historical operational data, and significant time pressures, as outlined in the systematic mapping study by Giardino et al. (2014); these constraints necessitate a strategic approach to product development, one that prioritises the validation of business ideas without the extensive allocation of resources toward fully developed offerings. The necessity for such an approach is rooted in the imperative to avoid the development of complex and potentially non-viable products, a practice that can lead to significant waste of scarce startup resources.

2.3. Founders' Influence and Significance in Startup Development

The role of the founder in a startup is multifaceted and essential for the success of the venture. Founders are not only responsible for the initial idea and vision of the company but also play a significant role in shaping the leadership behaviour within the organisation (Zaech & Baldegger, 2017). The early days of a startup often see the founder playing multiple roles, from lead product developer to chief salesperson, which facilitates a direct and effective feedback loop from customers to product development. In the context of enhancing the resourcefulness of founders to increase the probability of their startup's survivability, several influential founder skills, capabilities, and competencies play a crucial role.

Founders are accountable for developing the strategic and operational blueprint of the startup, engaging with stakeholders, and making critical decisions that influence the venture's future (Bernstein et al., 2014). The founder's proficiency in various areas, such as operational capabilities and expertise, significantly impacts the startup's ability to overcome challenges and achieve sustainable growth (Bernstein et al., 2014). Founders play a critical role in addressing dilemmas between customer and product development, highlighting their indispensability in the startup's initial phases (Eesley et al., 2023).

Research has shown that a founder's vision, capabilities, and prior experiences are fundamental in the early stages of a startup (Wasserman, 2016). Serial founders who have developed managerial and technical skills, along with a network of contacts, are more likely to secure external funds (Conti et al., 2013). The founder's own capabilities form a strong foundation for the startup, with the founder typically mastering key areas of the new enterprise (Seppänen, 2019). Studies have indicated that founder attributes, such as entrepreneurial self-efficacy and innovation, contribute to business development (Dessyana & Riyanti, 2017). Moreover, the founder's prior knowledge, specific to the industry where the startup operates, significantly influences the startup's knowledge base formation (Hashai & Zahra, 2021).

Rivera-Kempis et al. (2021) conducted a study on entrepreneurial competence, utilising machine learning to classify successful entrepreneurs based on a diverse set of competencies. The research emphasises the multidimensional nature of entrepreneurial competence, encompassing conceptual, procedural, and attitudinal knowledge. This holistic view acknowledges the complexity of entrepreneurship, where success relies on a rich tapestry of competencies spanning knowledge, skills, attitudes, and values. The study identifies key attributes of entrepreneurial success, such as autonomy, critical thinking, leadership, motivation, and the ability to exploit opportunities, highlighting problem-solving capabilities, interpersonal skills, and ingrained values as defining characteristics of successful entrepreneurs. In the knowledge domain, autonomous learning, critical thinking, and possessing relevant information are crucial for recognising and leveraging opportunities. Skills like creativity, innovation, leadership, and networking are highlighted as vital for entrepreneurial success. Moreover, the study delves into the attitudes and values essential for entrepreneurial resilience, including self-efficacy, competitiveness, confidence, and a tolerance for failure and uncertainty.

Entrepreneurial learning from failure is a crucial aspect of entrepreneurship that has garnered significant attention in academic research. Several studies have delved into the impact of failure on entrepreneurs and how they can learn and grow from these experiences. Cope (2011) reveals that entrepreneurs derive multifaceted learning outcomes from failure, encompassing self-awareness, insights into venture management, and the dynamics of networks and relationships. This comprehensive learning covers both the tangible and intangible aspects of entrepreneurship, underlining failure as a pivotal experience that shapes the entrepreneurial journey. The study emphasises that such learning is inherently future-oriented, aimed at enhancing the entrepreneur's preparedness for subsequent ventures. An important aspect of Cope's analysis is the acknowledgement of the financial, emotional, and social costs associated with failure. The study brings to light the necessity of social reparation for rehabilitation, highlighting the complex process entrepreneurs undergo in reconciling with failure and extracting valuable lessons for future endeavours. This perspective emphasises the importance of support networks and the social context in facilitating learning from failure. Cope (2011) positions failure not just as an incidental outcome but as an essential component of entrepreneurial progress and knowledge acquisition. This view indicates that serial entrepreneurs, those with prior entrepreneurial experience, are more likely to perceive failure as a valuable learning opportunity. Such a stance is pivotal for fostering a culture of resilience and continuous improvement among entrepreneurs. This body of research collectively suggests that failure, while often perceived negatively, plays a critical role in the

entrepreneurial learning process, offering unique opportunities for reflection, adjustment, and growth. Lattacher & Wdowiak (2020) also emphasise the pivotal role failure plays in entrepreneurial learning, indicating that failure experiences are essential for entrepreneurs to develop.

Founders' coachability is a crucial factor that influences various elements of entrepreneurial success, such as attracting mentors, securing investments, and impacting product innovation in new ventures. Coachability refers to the willingness and ability of founders to accept feedback, learn, and adapt to guidance provided by mentors, advisors, and stakeholders (Marvel et al., 2020). Recent research studies have highlighted the significance of founder human capital and coachability in the development of new ventures, impacting product innovation and the overall success of startups (Marvel et al., 2020; Svetek, 2022). The coachability of founders is often evaluated by accelerator managers, mentors, and investors, who play a key role in nurturing and supporting entrepreneurial endeavours. The dilemma of founder control versus value creation in startups highlights the challenge faced by founders in balancing the need for resources with the desire to retain decision-making control (Wasserman, 2016). This dilemma emphasises the importance of founder coachability in navigating such complex situations effectively. Leadership behaviour, especially that of founder-CEOs, plays a critical role in influencing startup performance (Zaech & Baldegger, 2017). The model outlined in the literature emphasises the significance of how and why leadership behaviour impacts startup success, further emphasising the importance of founder coachability in driving positive outcomes. Stakeholders also play a crucial role in emphasising the importance of coachability among entrepreneurs. They stress the significance of entrepreneurs being 'coachable' as they commit more than just capital to startups (Shams et al., 2020). This highlights the importance of coachability for founders' personal development and for securing support and resources for their ventures.

Harrison et al. (2017) identify key entrepreneurial leadership skills, including technical skills, business skills, conceptual skills, interpersonal skills, and entrepreneurial skills. These skills are crucial for effective leadership in startups. Furthermore, Bejinaru (2018) discusses essential entrepreneurial skills such as complex problem-solving, critical thinking, originality thinking, active learning, and judgment and decision-making, as these skills are fundamental for navigating the challenges faced by entrepreneurs. To explore the skills and competencies of founders in startups, it is essential to consider various dimensions highlighted in the literature. Mamun et al. (2019) emphasise that entrepreneurial skills, market orientation, and networking positively influence entrepreneurial competency, emphasising the importance of these skills for startup success. Mamun et al. (2019) highlight the positive impact of entrepreneurial skills on competencies and performance. Additionally, Svetek (2022) discusses how entrepreneurs' perceived competence and cooperativeness, along with personality traits and motivation, play a crucial role in early-stage financing and venture development. Moreover, it delves into the effects of the founder team's prior work experience on startup growth, highlighting the significance of collective experience within founder teams. This aligns with the notion that the composition and experience of the founding team are critical for startup success. Also, Wasserman (2016) emphasises that a founder's vision and capabilities are key ingredients in the early success of a startup, indicating the pivotal role of founder skills in shaping the trajectory of a new venture.

In the context of a startup, the startup itself functions as the central point where all influential stakeholders — including founders as solo founders, founder teams as co-founders, initial startup teams as the core team that are not founders, investors, mentors and industry experts, potential talents as future employees, and customers— converge with the intention of working towards shared objectives. However, it is important to acknowledge that, despite the surface appearance of unified goals, the reality is that each stakeholder group often has different expectations, goals, and definitions of what constitutes success for the startup. These variances in expectations can lead to complex interactions within the startup lifecycle. As an example, one of the most influential stakeholders regarding startup survival, customers, expect to receive value that justifies their investment in a product or service, which is essential for startups to establish a sustainable business model (Baldassarre et al., 2017). Meeting customer expectations plays a significant role in influencing the success and longevity of a startup's business model (Ghezzi, 2019). To achieve this, startups need to understand the actual needs of customers and address these needs in a way that customers perceive and receive the value. Continuous engagement with customers is vital for startups to gather feedback, identify areas for improvement, adapt to changing needs and preferences, and act on this new knowledge (Baldassarre et al., 2017). From another perspective, investors have different expectations from startups, which are crucial for startups seeking funding and financial support for their growth. Investors typically look for signs that indicate the potential for high growth, success in product-market fit, and viability of a startup. These signs can include aspects such as the quality of the team, the uniqueness of the product or service, market potential, and the ability to generate returns on investment. Investors often base their decisions on these signs when choosing which startups to invest in.

To navigate these complexities, strategic stakeholder management is vital, especially during the early stages of development (Spender et al., 2017). This involves recognising and addressing each stakeholder group's diverse needs and objectives to create a harmonious and effective collaborative environment (Spender et al., 2017) that maximises the unique contributions of each stakeholder towards the startup’s growth and long-term viability. Startups can access new information, ideas, technologies, and resources to drive innovation and growth by engaging with internal and external stakeholders effectively. This approach can be particularly beneficial during times of crisis, as it allows startups to adapt and thrive in challenging circumstances (Spender et al., 2017). Founders play a key role in this process by managing these stakeholder relationships.

3. Theoretical Framework

Camuffo et al. (2020) provide empirical evidence to support the claim that employing a rigorous methodology in testing business model hypotheses significantly contributes to superior performance outcomes. This finding emphasises the importance of a structured approach to validating business concepts, highlighting that a disciplined, hypothesis-driven testing process can lead to significantly better results for startups. Through systematic experimentation and validation, startups can refine their product offerings and business models to better meet market demands, leading to enhanced operational success and competitiveness. This approach, emphasising the importance of understanding customer needs and iteratively developing products, aligns with the principles outlined by Ries (2011) and Blank (2013). It emphasises the effectiveness of a customer-centric, hypothesis-driven approach in enhancing startup valuation outcomes.

In the study conducted by Thomas Eisenmann at Harvard Business School in 2020, 470 founder-CEOs of early-stage startups were surveyed to explore the determinants of startup performance. This comprehensive analysis sheds light on the practices and strategies that correlate with successful outcomes in the early stages of a startup's life cycle. Eisenmann's survey results indicate that company culture, role clarity, team conflict, and the "methodical" trait of the founding team have significant relationships with valuation outcomes. Among various traits such as resilience, vision, and charisma, being "methodical" was uniquely identified as having a statistically significant bivariate relationship with improved valuation outcomes. This insight emphasises the value of systematic and disciplined approaches in startup operations. Interestingly, Eisenmann's findings also touch upon the aspect of "founder fit" over the attractiveness of the opportunity in investors' decision-making processes. This suggests that investors place a considerable emphasis on the compatibility of founders with their ventures, potentially even above the inherent attractiveness of the business opportunity itself.

Eisenmann's research highlights the significant impact of lean startup practices on early-stage startup performance. Startups that engaged in customer discovery research, tested their business model hypotheses through minimum viable product (MVP) tests, and prioritised validated learning demonstrated stronger growth in seed equity valuation (Eisenmann, 2020). Eisenmann's findings resonate with the broader body of research advocating for a hypothesis-driven approach to startup development.

In addition to the Lean Startup methodology, the startup ecosystem is familiar with and utilises various methodologies and frameworks that can either be complementary or more suitable to the nature or industry of the startup. The following section provides brief information about the proven effective ones.

3.1. Lean Startup

In the study by Bocken & Snihur (2020), the authors investigate how lean startup methods, which prioritise quick, iterative learning through direct customer feedback, can significantly improve the way entrepreneurs develop their business models. They address the challenge highlighted by Teece (2018) where entrepreneurs struggle to translate innovative ideas into effective business models. Business experimentation, as further elaborated by Contigiani & Levinthal (2019), is presented as a vital process that not only encourages ongoing testing and learning but also boosts a firm's ability to absorb and utilise new information. The Lean Startup methodology advocates for the continuous cycle of Build, Measure, Learn to drive innovation and reduce risks associated with new ventures. Startups can efficiently validate their ideas, refine their offerings, and respond to market demands in a timely manner by focusing on incremental progress and rapid experimentation. This contrasts with traditional business planning, which relies more on speculation than direct feedback. Central to the discussion is the idea, originally put forth by Blank (2013), that entrepreneurs must actively seek out customer input outside the traditional office setting ("getting out of the building"). This hands-on, action-oriented strategy is not just beneficial for startups looking to quickly launch and refine their product offerings but is also relevant for established companies aiming to innovate within rapidly changing markets. Bocken and Snihur (2020) argue that the lean startup's emphasis on experimentation over exhaustive planning enables businesses to more effectively identify viable business models and adjust their strategies

based on customer feedback. This approach reduces the risk of investing heavily in unproven ideas and allows firms to pivot more gracefully when initial concepts do not meet market expectations. Key building blocks of Lean Startup:

Build, Measure, Learn (BML) Loop; is a fundamental concept within the Lean Startup framework, which emphasises an iterative approach to product development (Baldassarre et al., 2017). This loop consists of three key steps: building a minimum viable product (MVP), measuring its performance through customer feedback and data analysis, and learning from the insights gained to make informed decisions about the product's future direction (Becker & Endenich, 2022). The BML loop is designed to facilitate validated learning by enabling startups to test their assumptions, gather real-world feedback, and adapt their strategies based on empirical evidence (Hokkanen & Väänänen-Vainio-Mattila, 2016). Startups can accelerate their innovation cycles, improve product-market fit, and drive sustainable growth by embracing validated learning and customer-centricity (Baldassarre et al., 2017). The BML loop serves as a practical framework for businesses to navigate uncertainty, make data-driven decisions, and pivot effectively based on market feedback.

Lean Startup Canvas; is a strategic tool that complements the Lean Startup methodology by providing a structured framework for founders to visualise, analyse, and iterate on their business models. This canvas typically consists of key building blocks that include identifying market opportunities, designing business models, engaging in validated learning, building minimum viable products (MVPs), and making informed decisions on whether to persevere with the current course of action or pivot based on feedback (Shepherd & Patzelt, 2021). The canvas serves as a practical guide for startups to streamline their product development processes, validate assumptions, and prioritise resources effectively. It facilitates the identification of unique value propositions and the development of solutions that resonate with target audiences by encouraging a customer-centric approach and rapid prototyping. This iterative process of refining business models and testing hypotheses aligns with the core principles of the Lean Startup approach, emphasising agility, learning, and adaptation Ries (2011).

Minimum Viable Product (MVP); is a foundational concept in startup development that involves creating a basic version of a product with essential features to test its viability in the market. MVPs are designed to quickly validate ideas, gather feedback from early users, and iterate on the product based on real-world data. The primary goal of an MVP is to collect feedback from initial users and use that feedback to iterate and improve the product (Hokkanen et al., 2016). MVPs are essential in the context of startups as they allow for quick validation of ideas with minimal resources, reducing the risk of developing a product that does not meet market needs (Hokkanen et al., 2016). This iterative approach not only helps in refining the product but also in conserving resources by avoiding investing heavily in features that may not be essential or well-received by users (Ghezzi, 2019). Moreover, MVPs play a crucial role in the early stages of startups, where building a product is often cited as a significant obstacle (Wang et al., 2016). Additionally, MVPs facilitate the speed of prototyping, allowing startups to experiment quickly with different ideas and gather user feedback efficiently (Nguyen-Duc et al., 2017).

Validated Learning; is the concept of validated learning through purposeful experimentation (Mansoori, 2017). This approach involves validating and innovating their business models

through market tests and early customer feedback. (Ghezzi & Cavallo, 2020). Lean principles emphasise continuous learning based on customer validation of functionality, experimentation with customers to test hypotheses and assumptions, and short feedback cycles to avoid efforts on activities that do not generate customer value (Bosch et al., 2013).

Pivot or Persevere; refers to the critical decision-making process where founders evaluate the progress of their startup and decide whether to make significant changes to their business model (pivot) or continue with the current strategy (persevere) (Shepherd & Gruber, 2020). This decision is often based on the feedback received from the market and the performance of the minimum viable product (MVP) (Berg et al., 2018). Pivoting has become a fundamental aspect in the startup community, emphasising the need for startups to adapt and change direction when necessary to achieve success (Hampel et al., 2020). The Lean Startup approach plays a significant role in guiding founders through the pivot or persevere decision-making process. It involves engaging in validated learning, building MVPs, and ultimately determining whether to continue with the current course of action or pivot to a new direction (Shepherd & Patzelt, 2021). The pivot is seen as a structured course correction aimed at testing new fundamental hypotheses about the product, strategy, and growth engine of the startup.

Innovation Accounting; Ries (2011) describes innovation accounting as "A way of evaluating progress when all metrics typically used in an established company (revenue, customers, ROI, market share) are effectively zero.". The concept refers to the process of measuring progress in innovation, which involves quantifying the impact of innovation efforts and assessing the effectiveness of various strategies and initiatives aimed at enhancing innovation within a startup environment. Its role is to enable entrepreneurs to make data-driven decisions and effectively manage the innovation process by leveraging metrics and key performance indicators (KPIs) that are specifically tailored to the unique challenges and opportunities faced by startups, such as the viability of their business models, effectiveness of product development efforts, and overall progress towards achieving sustainable growth and success (Mansoori, 2017).

Continuous Deployment; is the concept that emphasises the iterative and rapid deployment of product versions or features based on customer feedback and market validation, aiming to minimise waste and optimise resource spending (Mansoori, 2017). The continuous deployment process involves the Build, Measure, Learn loop where new versions or features are built, their impact is measured, and the learning from customer feedback is used to improve the next iteration (Baldassarre et al., 2017).

3.2. Design Thinking

Design Thinking is a problem-solving framework that has been recognised as a customer-centric approach for fostering creativity and innovation, with a focus on understanding human needs related to a problem, reframing the problem in human-centric ways, creating numerous ideas, and adopting a hands-on approach to prototyping and testing (Foster, 2019). Key stages of Design Thinking are:

Empathise; is the user research stage that focuses on understanding the needs, desires, challenges and pain points of the users for whom the product or service is being designed. This stage involves gaining deep insights into the users' experiences, motivations, and

behaviours to develop a profound understanding of their perspectives (Foster, 2019). This stage involves techniques such as surveys, interviews, and observations to gain insights into the users' perspectives and to develop empathy for their experiences.

Define; this stage involves synthesising the information and insights gathered during the Empathise stage to define the core problems and challenges faced by the users. It is the phase where empathy-driven understanding of the users' needs turn into actionable problem statements that will guide the Ideation and Prototyping processes (Baldassarre et al., 2017). This stage aims to frame the problem in a human-centric manner, ensuring that the solutions are focused on addressing the real needs and challenges of the users.

Ideate; the Ideation stage involves the generation of innovative ideas and potential solutions to address the defined problem statements. A divergent thinking process characterises it and encourages the exploration of a wide range of possibilities and potential solutions without constraints. The goal of the Ideation is to enhance creativity, encourage uncommon, unconventional ideas, and explore alternative perspectives to generate a rich pool of potential solutions (Foster, 2019). Ideation stage is particularly important as it lays the foundation for the unique value proposition and innovative solutions that can differentiate the startup in the market. The focus on creativity and exploration during the ideation stage aligns with the dynamic and innovative nature of startups. This approach allows them to challenge traditional norms and develop disruptive solutions (Baldassarre et al., 2017).

Prototype; this stage involves the creation of tangible representations of the proposed solutions developed during the Ideation stage, which focuses on translating ideas into physical or digital prototypes that can be tested and refined based on user feedback and iterative experimentation (Howard et al., 2015). Building the initial version of the product according to the founder's vision or solution may not always align with what the market demands, highlighting the significance of customer-centric product development (Hokkanen et al., 2016). Founders must navigate challenges such as the speed of prototyping, which requires minimising waste and focusing on elements that will be tested to validate the product-market fit efficiently (Nguyen-Duc et al., 2017). This stage emphasises the importance of rapid prototyping and iterative refinement, enabling the exploration of multiple iterations of the proposed solutions and refining them based on user insights and testing outcomes. This iterative approach ensures that the final solutions are well-informed, user-centred, and aligned with the real needs and preferences of the target market.

Test; this stage involves the validation and refinement of the proposed solutions through experimentation and feedback, emphasises the adoption of a scientific approach to entrepreneurial decision-making, where startups develop frameworks for predicting the performance of their ideas and conduct rigorous tests of their hypotheses, similar to how scientists conduct research (Ghezzi, 2019). This approach ensures that the testing process is systematic, data-driven, and focused on validating the viability and desirability of the proposed solutions. It focuses on testing the assumptions and hypotheses set by the startup to better understand how its business idea will work and create value for customers, how value will be delivered to the customers, and how a share of such value will be captured to ensure the startup's sustainability (Camuffo et al., 2020). This stage aligns with the principles of user-driven innovation, emphasising the importance of involving users in the testing and validation process to ensure that the resulting solutions are truly meaningful and valuable.

This customer-centric approach is essential for startups, as it allows them to gather feedback directly from their target market and iterate on their solutions based on real user insights (Eesley et al., 2023).

3.3. Effectuation

Effectuation is a decision-making framework designed for entrepreneurs to navigate the uncertainty and complexity of new ventures. Unlike traditional approaches that focus on predicting and planning for the future, effectuation emphasises leveraging the resources at hand to create opportunities. This approach stands in contrast to the causal approach, which is based on predicting and controlling the future. Effectuation is characterised by a focus on the entrepreneur's control over the future, the use of contingencies, and the transformation of goals based on the means at hand (Sarasvathy, 2001). While causation views the future as a continuation of the past and entrepreneurial actions as goal-oriented endeavours aimed at avoiding potential contingencies through accurate predictions and careful planning, effectuation perceives the future as shaped by entrepreneurs who act based on the means at hand rather than predefined goals. Effectuation processes are conceptualised in terms of experimentation, affordable loss, flexibility, and pre-commitments (Deligianni et al., 2020). Sarasvathy (2001) outlines the key principles of effectuation as follows:

Bird in Hand Principle (Start with your Means); emphasises leveraging existing means or resources to initiate entrepreneurial endeavours. This principle suggests that instead of focusing on predefined goals and extensive planning, entrepreneurs should start with the resources they currently have, such as their skills, knowledge, social networks, and available opportunities, and then shape these means to create value and opportunities. This principle encourages entrepreneurs to adopt a mindset that focuses on what they have and what they can control rather than being constrained by what they lack or cannot influence (Sarasvathy, 2001). By leveraging existing means, entrepreneurs can take immediate action, make calculated decisions, and adapt to contingencies as they arise, thereby shaping the future through their actions (Fisher, 2012).

Affordable Loss Principle (Focus on Downside); as described by Sarasvathy (2001), emphasises taking calculated risks and the importance of entrepreneurs determining the amount of resources they are willing to lose at the outset of a venture. This principle allows entrepreneurs to leverage limited resources in creative ways to generate new ends and means (Fisher, 2012). Empirical support for the principle of affordable loss has been provided, successfully differentiating entrepreneurial action that focuses on only risking what they can afford to lose from more causal approaches (Sarasvathy et al., 2014).

Lemonade Principle (Leverage Contingencies); refers to turning challenges into opportunities and the ability of entrepreneurs to be prepared to adapt and repurpose their resources in response to unforeseen circumstances rather than being solely reliant on predictive planning and control. This principle emphasises the importance of being flexible and resourceful in the face of uncertainty and unexpected events, allowing entrepreneurs to repurpose existing capabilities and resources to address new challenges and opportunities (Sarasvathy et al., 2014). It highlights the proactive and adaptive nature of entrepreneurial decision-making, enabling entrepreneurs to leverage their experiences and resources to create value in changing and unpredictable environments (Sarasvathy et al., 2014).

Crazy-Quilt Principle (Co-creation Partnerships); a strategy that emphasises forming partnerships based on mutual interests with individuals and organisations committed to jointly creating the future. It highlights the importance of proactive engagement and collaboration over traditional competitive analyses and strategic planning (Fisher, 2012). This principle encourages entrepreneurs to focus on building strong partnerships with those who are willing to make a real commitment to co-creating the future. By doing so, entrepreneurs can leverage the collective resources and expertise of their partners to navigate the uncertainties and complexities of new endeavours, ultimately leading to innovative and sustainable outcomes (Sarasvathy et al., 2014).

Pilot in the Plane Principle (Control the Controllable): This principle signifies the entrepreneur's focus on controlling whatever is controllable in their environment, understanding that the future is not found or predicted but is made through human action. This principle emphasises the role of the entrepreneur as an active agent in shaping the future rather than being a passive recipient of external forces. It is described as a rejection of inevitable trends and a strong goal-directed orientation without loss of flexibility (Sarasvathy et al., 2014).

3.4. Innovative Business Model Design (Business Model Innovation)

Innovative Business Model Design refers to the process of creating, adapting, or fundamentally changing a company's business model to better suit the needs of the market or to take advantage of new opportunities (Evans et al., 2017). It involves rethinking how a company creates, delivers, and captures value, and it is crucial for startups due to its potential to drive sustainable growth and competitive advantage (Ghezzi & Cavallo, 2020). In the context of startups, innovative business model design is essential for several reasons. Firstly, it allows startups to differentiate themselves from competitors by offering unique value propositions and revenue models (Baldassarre et al., 2017). This is particularly important in crowded markets where startups need to stand out to attract customers and investors. Secondly, innovative business models can help startups adapt to changing market conditions and customer needs, enabling them to remain agile and responsive in dynamic environments (Ghezzi & Cavallo, 2020). Additionally, startups can use innovative business models to attract strategic alliances and resources, which can be critical for their growth and success (Cacciolatti et al., 2020). Moreover, innovative business model design is closely linked to the concept of entrepreneurial competence, creativity, and leadership. It requires entrepreneurs to possess the skills and capabilities needed to identify opportunities, creatively design new business models, and effectively lead their organisations through the process of change and adaptation (Rivera-Kempis et al., 2021; Harrison et al., 2017).

3.5. Product-Market Fit (PMF)

The “Product-Market Fit” is a critical concept for startups, referring to the alignment between a product and the specific market it targets. Achieving PMF means that the product satisfies a strong market demand, leading to sustainable growth and success for the startup (Eesley et al., 2023). It involves developing a product with relevant inputs and engaging with potential customers early on to validate demand for the product and achieve a good target product-market fit (Pietro et al., 2017). Startups that achieve PMF are more likely to survive and perform well, as it is known that successful new product survival and overall startup performance depend on certainty in product-market fit (Eesley et al., 2023). In the pursuit of

product-market fit, it is essential to prioritise understanding the problem-solution fit (PSF) before rushing into product development and launch (Giardino & Abrahamsson, 2014). This emphasises the importance of aligning the product with the identified market needs to ensure its acceptance and success. A founder's vision and capabilities are identified as key ingredients in the early success of a startup. This implies that when the founder's vision aligns with the market needs, it can lead to the development of products or services that are well-suited to the market, increasing the chances of acceptance and success.

3.6. Founder-Market Fit (FMF)

Founder-Market Fit refers to the alignment between the founder's knowledge, skills, experiences, and vision with the specific market they are targeting with their startup (Haase & Eberl, 2019). FMF emphasises the importance of founders having a deep understanding of the market they are entering and possessing the necessary skills and capabilities to address the needs and challenges within that market. It is significant for startups because a strong Founder-Market Fit increases the likelihood of startup success by having the ability to understand the customer needs and pain points better (Wasserman, 2016; Kopera et al., 2018; Hashai & Zahra, 2021).

4. Methodology

This research employs a mixed-methods exploratory and qualitative research design, integrating a systematic literature review with semi-structured interviews to address the gap in the literature by identifying which trainable attributes of startup founders are associated with common startup failure reasons, aiming to elicit detailed insights into the dynamics of establishing stronger startup foundations through founder preparedness.

At the centre of this research is a series of semi-structured interviews with stakeholders from the startup ecosystem, including startup founders, venture capitalists, mentors, investors, and representatives from incubators, accelerators, and academia. The selection of participants is strategic, focusing on individuals with substantial experience and expertise in startups, entrepreneurship, and associated fields. This deliberate selection of participants is intended to ensure a comprehensive understanding of the startup foundation process from diverse perspectives, enriching the study with multifaceted insights into the role of trainable founder attributes in shaping startup trajectories. The interviews concentrated on vibrant startup ecosystems in Estonia and Finland. These regions, known for their distinctive yet interconnected approaches to fostering entrepreneurship, present an ideal environment for capturing diverse perspectives and experiences.

The methodology emphasises the use of open-ended questions during interviews, allowing participants to freely share their experiences, perceptions, and narratives. This approach is designed to uncover the complexities and nuanced dynamics at play in startup development, with a particular focus on the association of founders to common startup failure reasons. A thematic analysis was applied to the qualitative data collected from the interviews, aiming to identify recurring patterns, themes, and critical insights that emerge from the stakeholders' narratives.

Through integrating insights from both the literature review and the findings from interviews, this thesis aims to uncover the intricate relationship between trainable founder attributes and their significance in the foundational aspects of startup development. It seeks to

deepen the understanding of which trainable founder attributes are influential in establishing strong startup foundations and to offer valuable insights for founders, the startup ecosystem, and policymakers interested in supporting the development of startups with strong foundations through empowered founders.

Table 1: Interview requests

Method	Request Sent	Positive	No Response	Time Conflict
LinkedIn	12	4	6	2
Email	5	4	1	-

Table 2: Overview of interviews (In alphabetical order)

Interviewee	Background	Indicator in Thesis	Date	Duration	Country
A. D.	Incubation Specialist	Incubation Specialist	30.04.24	57 min	Finland
A. K.	VC, Angel Investor	Investor	02.05.24	36 min	Finland
J. K.	Founder, Startup Educator	Startup Educator	03.05.24	2h 10m	Finland
K. A.	Founder, Advisor, Academic	Academic	10.05.24	42 min	Finland
N. H.	Accelerator CEO, Founder CEO	Accelerator CEO	08.05.24	32 min	Finland
S. T.	Founder CEO, Advisor, Investor	Advisor	06.05.24	18 min	Estonia
T. K.	Founder CEO, Advisor, Mentor	Mentor	13.05.24	45 min	Estonia
V. M.	Deep Tech Specialist, Advisor	DeepTech Specialist	30.04.24	59 min	Estonia

In total, 17 interviewee candidates have been contacted via LinkedIn and email, and 8 interviews have been conducted.

5. Analysis and Findings

5.1. Failure Reasons and Root Causes

While analysing the factors contributing to startup failures and successes, it is crucial to understand the extent of founders' and founding teams' influence on these outcomes, as highlighted by Zaech & Baldegger (2017) as well. The insights from the interviews have been in parralel with the literature. About the relationship between the common failure reasons to the founders, Investor pointed out;

> *"I would say 80 points [out of 100] of the failure is typically dependent on the founders."*

S/he continued, emphasising the delicate balance founders must achieve between tenacity in their vision and receptiveness to market feedback, stating, *"You [founder] need to somehow balance between being very stubborn and believing in your idea, and at the same time, listening very carefully to the market to see where your assumptions were incorrect, and where they were correct. What would be the best way to proceed in the market?"* which was also referred to by Wasserman (2016) previously.

S/he also highlighted another common challenge founders face, especially in the early stages, as ending up playing various different roles, which aligns with Bernstein et al. (2014); s/he stressed, *"None of us is actually going to be a master in all areas. And understanding that*

what things are going to be critical, being able to hire people who are better than you doing that particular task" is vital.

Advisor also emphasised the interconnected nature of these outcomes, but highlighted the significance of founders, stating, aligning with Wasserman (2016);

"It's hard to separate anything basically, like if your startup is in the early stages, it is nothing but the founders. Like any fail on this is the founders' fault, right?".

S/he provided examples pointing out that connecting the necessary people, not getting the product-market fit, receiving the response from the market are ultimately founders' responsibility, stating "*it's still what didn't they [founders] do, in that sense, everything is the founder's fault.".*

Accelerator CEO presented an alternative perspective, emphasising the profound influence of founders' abilities to cultivate relationships and connections with new co-founders, investors, and customers can significantly affect a startup's trajectory, echoing Bernstein et al. (2014);

"Most of the troubles that they [founders] run in are that they are unable to convince new co-founders, convince investors, convince customers because they themselves lack the knowledge or lack of the vision of where is this company going."

This perspective emphasises the pivotal role of founders in not only internal team dynamics but also external relationships, which are crucial for startups.

Some of the most recurring failure reasons revolve around the concept of product-market fit, in parallel with Cantamessa et al. (2018) and Giardino et al. (2014). Incubation Specialist also highlighted this, by stating, *"There is no product-market fit. I would say that's the number one reason that it's either the idea is not good enough, or the product is not good enough for people to want to actually buy it."*

DeepTech Specialist also stated, referring to startup failure reasons;

"[lack of] product-market fit or you don't find where your product fits in, I would say one of the most common ones."

Academic similarly referred to the product-market fit and its importance for the startup, stating;

"First of all, most startups should never be started. It's not about the skills but nobody wants the thing [product/solution]."

He continued emphasising one of the most common failure reasons, *"I think the biggest problem for startups typically is that you build something that nobody is willing to pay for. They are not going to use it even for free, and you ask them to pay for it. Somebody needs to want it or need it, hopefully both in best cases."*

Accelerator CEO further emphasised the importance of founders' ability to interpret factual information and customer feedback objectively, avoiding biases;

"On the point of the founders is their inability to have intellectual integrity with themselves. In a sense that they are unable to be honest with the signals they are getting from customers and from the market. Most startups fail because they are unable to find

traction or find demand for what they are building, and I do think that's quite founder-related."

Emphasising the significance of customer and market feedback, aligning with Nguyen-Duc et al. (2017), Ghezzi (2019), and Ghezzi & Cavallo (2020). Interrelated, Incubation Specialist stated, referring to it to be another major mistake, "*not validating the idea enough and thinking that they have a great idea. Founders need to test a little bit of how to validate the product."*. S/he highlighted the importance of the quality of the user research as well;

"*How people are responding, to what? What are the good questions to ask? We would get a very different answer if we asked a better question."*

Accelerator CEO further provided more insights about the significance of interpreting factual information, customer feedback, being objective and avoiding biases;

"The ones [founders] that actually succeed are the ones who, very early on, are able to predict whether there is actual customer demand, they're able to differentiate compliments from friends to actual demand from customers. Those founders who are able to be the most honest about the results that they're getting, are the ones that tend to do the best."

And s/he added, referring to not being able to interpret or understand what the actual feedback or information to take, or choose not to;

"What are the most founder-related failures? It's with their inability to see what's in front of them."

In relation to this statement, Startup Educator shared his personal experience about how being biased can cause serious setbacks that potentially cannot be recovered from, "My two passions are design and music, so I got to design instrument, that was like a *dream come true. So, you get biassed yourself. You see these little red flags, but you go like, but this is a cool opportunity, I'm going to go for it. And then, once you get into it, once you get invested in it, then you start realising that these red flags were actually real. And these are so bad that I don't know if we can recover from it, then it's too late."*.

Moreover, Mentor highlighted the critical role of being problem-focused and customer-centric, aligning with Giardino et al. (2014), Baldassarre et al. (2017), and Szathmári et al. (2024):

"If this is their first startup, very often they [founders] don't understand the lean startup concept, and they start off with figuring out some solution, imagine if there was this product that does this, but they have no idea of the problem. They imagine that the problem definitely exists somewhere; very often, most of the startups that I advise don't actually have a problem."

S/he continued with an example highlighting that there are startups that even raised funding without having a problem to solve, but just having an unvalidated solution at hand;

"Unfortunately, I've also advised startups where they have raised [funding], and they don't have a problem, but they have built this massive solution. That's very often the main problem that they don't have a problem."

Aligning with this statement, Accelerator CEO also pointed out that;

> "*I would say it's lack of vision, in a sense, quite a few of them are building a product they think would be fun for the world to exist. But there's a lack of understanding of the bigger picture of what is the world going to look like after our product is in it."*

S/he continued referring to the fast-paced and short-cycled nature of startup development, and how important it is to test, get results, interpret and act on them;

> "*Founders tend to learn too slow about the things that they are seeing. They tend to execute way too slow on what they're supposed to do in order to drive the results. So very often it's the lack of actions that would actually then bring them closer to having traction or finding customers*."

This was in alignment with the suggestions of Ries (2011), Hokkanen et al. (2016), Nguyen-Duc et al. (2017), Ghezzi (2019), and Ghezzi & Cavallo (2020) emphasised the utilisation of feedback through quick iterations and tests.

As highlighted in the literature and by the interviewees, product-market fit is crucial, but also not enough by itself; as Incubation Specialist pointed out, there should also be a big enough market potential and size, to be able to become a business;

> *"Or, it can be an excellent idea, and people would like it, but there's not enough market, it is too small, or the price that people would be ready to pay is not high enough to be able to support the business."*

In alignment with Lovrincevic (2022) regarding the importance of business model understanding and founders' business knowledge.

Academic also underlined that having a product that people want, and having a business potential with it are two entirely different things, "*Of course, you need to make profit, so it's a sustainable business as a business.".* S/he also emphasised that not being adaptable or open to feedback, and being too stubborn with the initial idea can be a big mistake, *"You [founders] believe so much in your business that that's the biggest problem."*, aligning with Nguyen-Duc et al. (2017), and Szathmári (2024) in relation to being able to adapt and pivot according to new information and market feedback.

Another recurring theme was team building and formation related, in various ways. As an example, Mentor highlighted the misalignments in the founding team, "*When the newly founded team takes off, they have to deal with what do we want to achieve, what's the mission, and what is our vision? Then there's misalignment; some founders think let's do something big and others think, let's just see what happens, enjoy the road and not take too many risks. I see this happening a lot. Some teams do not survive this misalignment, and then they just fall apart."*, that team misalignment was also highlighted as a challenge and failure reason by Cantamessa et al. (2018).

DeepTech Specialist also referred to this misalignment as team breakups;

> "*Team breakup, I would call it this way or founder breakups. Interestingly enough, people are usually not prepared for success. They are prepared to some extent*

to be unsuccessful, but especially first-time founders, they are not prepared for success."

Another team dynamic s/he sees lacking is, "*Other one [root cause] is that you don't have clear roles and the division of roles from early on*.", referring to the importance of being structured and having clear responsibilities in the team. S/he continued, referring to the later effects of team misalignments, "*This causes a lot of stress and arguments later on, to some extent, where key founders might become key blockers of the next funding rounds.*". In relation to this, s/he underlined that being prepared for both outcomes is essential, "*making written agreements from day one like the shareholder agreement, and how do we act when we are successful, or how do we act or take the responsibility when we are unsuccessful*?".

He also mentioned the lack of finances as one of the big failure reasons, acknowledging the possible various root causes to this issue, "*Then, inability to fundraise. Again, it might not be the root cause, it might be a symptom of other causes, but you just run out of funds or you don't manage to raise. So, there might be underlying causes, but what eventually kills you is that you don't have any money that you can't continue*.", that Cacciolatti et al. (2020) also highlighted the importance of the founders' role in securing financial support.

Moreover, Investor emphasised the significance of team formation and quality, stating, *"Especially if you have a larger founder team, not all the people have the same commitment, nor necessarily the skills required to be successful."* underlining the importance of cohesive team dynamics.

Another team-related reason was pointed out by Triinn Kask, referring to the difference between corporate mindset and startup mindset, "What I've also seen is a weak team, very often those who have worked too long in corporations, they can't learn, *or they are not able to understand how startups are made. They bring along the same corporate mindset. Because they are seasoned players, they very often also get investments. And it's like, I got this money and then I formed a team, and I thought if I have all the positions filled in, then everything just comes together magically by itself. Again, what are you building? What is this problem, and what is this solution?*".

5.2. What Is Missing?

As it has been discussed and mentioned in both literature and insights from the interviews, common startup failures are caused by interlinked multiple reasons that have various root causes. These root causes originate from the lack of knowledge, awareness, experience and certain attributes.

Incubation Specialist underlined the importance of coachability and the ability to learn and added, "*not seeing the mistakes, not willing to learn from those mistakes, just like being blind*.", aligning with Marvel et al. (2020), and Svetek (2022). S/he also emphasised the team quality, the importance of forming a capable team, combined with the experience in the process, stating, "*If you have experience and you get together with really smart suitable people, then it doesn't matter what the product is, you just come up with something that answers the need.*".

That is also linked to customer discovery and understanding the actual problems, needs, and wants. As s/he mentioned, also previously highlighted by Ries (2011), Blank (2013), and Baldassarre et al. (2017);

"Understanding the need of the customers, the ability to talk to the customers, and to really, really understand what's there."

S/he also pointed out the importance of "*the ability to let go of the idea that you think is cool, and changing it into something that is actually needed.",* referring to being adaptable to the changing and evolving nature of startups and pivoting when necessary, as previously highlighted Ries (2011), Hokkanen et al. (2016), and Nguyen-Duc et al. (2017), also referred to Lean Startup methodology by Bocken & Snihur (2020). S/he also underlined that *"you need to know exactly where you go, then what do you want to achieve?*", referring to being methodical, applying decision-making methods and the importance of tracking relevant numbers.

Academic highlighted the importance of being problem-focused rather than building and pushing unvalidated solutions, in parallel with Giardino et al. (2014) emphasising the importance of problem-solution fit to achieve product-market fit, highlighting the importance of understanding the actual problem. Academic also underlined, "*We have people pushing the solution that nobody wants. It can be a technological solution; the customers don't understand, or you fall in love with your technology. And that's a different thing than understanding the customers' need and finding the best solution*.". S/he continued, "*Sometimes you have the experience as the customer, and you know the problem deeply, or you see the problem somehow, and you validate the problem. Then, you start looking for the potential solution for that. And that seems to be a much more successful case*.", s/he stated;

"It's a cliche, but it's also true that love the problem, not the solution."

Referring to, and also in relation to, the product-market fit and customer-centricity, supporting the argument that founders should start with understanding the actual problem, then create the fitting solution addressing this problem, rather than creating a solution to an unvalidated or not big enough problem.

Aligning with this argument, Advisor also highlighted that the proposed solution will change on the way, so the problem matters more than the solution at hand;

"I think the first thing is not to think what you want to build, but what is the problem you want to solve. As you go along, as you learn, and listen to the customers, what exactly you're building on the solution will change. But being passionate about the problem you're solving is more important because you're going to be stuck with that for a while. In order to have the persistency, in order to have this resilience to keep at it, you need to really care about the problem."

DeepTech Specialist similarly stated, "*Perhaps too much focus on product or technology development early on, instead of going out and listening to users and customers; like testing or validating the idea or what you have*.", referring to underlying missing aspects.

Accelerator CEO shared a relevant personal experience from her/his own startup journey, in relation to being unbiased, understanding the feedback, receiving results, and not being fixed

with the solution and idea at hand, "*The number one that would have saved us would have been the ability to interpret the results of our user data. For a long time, instead of interpreting it [data] like scientists, looking at facts as they are, as a founder, you are quite inclined to love your idea and you look for the positive signs that aren't there. So, having the ability and the actual skills to interpret almost like a data scientist, just looking at when the music just isn't there, that would have been the number one skill I would have loved to learn."*, referring to what would have had positive influence if s/he had/learned earlier in her/his startup journey.

Another related personal experience was shared by Startup Educator, "*We were so ambitious about making really high-quality productions. We were more about expressing our own artistic visions than listening to the customers, the thing was that the customers just wanted something cheap. But that wasn't obviously what we wanted to make, we wanted to make artistically beautiful content. We refused to listen to them [customers] because it was kind of against our own beliefs. But for them, it was just another media among anything else*.".

Mentor shared one of her/his personal experiences in the intersection of problem, solution and the business model, "*One thing would be to be more customer-centric; with the first startup, [I] solved my own problem. I thought everybody had the problem, but I never understood the business model."* highlighting that the right solution for the right problem is vital, but startup also need to have a business model(s) to turn it into a business and make it repeatable and sustainable. S/he continued, "*It's a combination of different aspects when you think about the business, it's not just pricing, it's a matter of who and why and what like; who is paying, why are they paying, and what are they paying for, what is the value proposition?",* s/he explained it as;

> *"It came with this enlightenment when we saw; this is why they are paying for, this is the problem that we're solving, and this is the exact customer segment who has the biggest pain and they are willing to pay, so that we could ease this pain point."*

Another lack of practical attribute was highlighted by Accelerator CEO, "*One founder described that they were unable to get funding from an investor because they were unable to make sales predictions, they had no way of quantifying how much might we sell in the future. They would have to learn to do some financial modelling on Excel or somewhere else, that the calculations can't live in their head, which was a lack of a founder capability, and they lost the money.*" referring to how founders' capabilities are influential on their startup's trajectory.

DeepTech Specialist provided another perspective highlighting the short-term and long-term dynamics, and emphasised the importance of building networks on the way, "*Misconception of time, or underestimating how long term, especially investor relationships, they are that we are giving more significance to short term developments and we are underestimating the long term, or the relevance of network building*.", and continued, "*Even if somebody says no, you still should maintain a good relationship with; was the person whom you wanted to hire, was it an investor, was it a strategic partner, after six months, twelve months, eighteen months, the time might come back to them and you might need them again. And if you ruin this relationship early on, then you don't have those allies and friends long term. Sometimes this short-term approach comes in, and you underestimate that how long of a journey actually a*

company building is." which was also highlighted by Cope (2011) and Mamun et al. (2019) previously.

Acknowledging the importance of network building, s/he also shared additional insights, *"Communication, human relationships and business relationships, still the same. Your average human relationship is not so different with network, it just takes time to build this network of contacts, whether it's business or personal. And, you should start early on because it accumulates over time.".*

About the mistakes the founders repeatedly fall into, Incubation Specialist pointed out that the basic ones are usually caused by lack of experience. S/he agreed that different frameworks and methodologies definitely help, s/he also noted that founders cannot read about the experience part, where they start noticing what is working and what is not working during the process. Similarly, Landström, Harirchi, and Åström (2012) also highlighted being inexperienced as one of the common reasons for startup failures.

Academic also stated similarly, "*You [founder] typically don't have the experience, you don't have understanding inside and you don't have the networks.".*

Also, aligning with both, DeepTech Specialist stated, "*One thing [root cause] could be inexperience. So, you just haven't gone through the journey. Therefore, you are not prepared for what is coming ahead.*".

5.3. What Helps to Recover from Setbacks?

The startup development process is a changing and evolving process with constant uncertainty. Advisor pointed out that things will go wrong, and being able to recover from these setbacks makes the difference;

> *"I think there's one that is pretty consistent is persistence. Because, it's not the question of if something will go wrong, but it's guaranteed that things will go wrong, and there is, I think, higher success for the founders who keep going and try again."*

In alignment, Caliendo et al. (2019) emphasise that the longevity and growth of a startup are significantly influenced by the founder's persistence and competencies.

Accelerator CEO also pointed out that, with an additional aspect of "speed of learning", aligning with Cope (2011), and Bejinaru (2018);

> "*Speed of learning, I would say. The faster you learn, the faster you are able to try again, which means that in the same amount of time, if you have two founders, the one that's able to learn and execute faster gets ten tries at the building of product when the other one only gets one."*

In addition to the speed of learning, s/he also highlighted the speed of execution as something necessary to improve;

> *"It might seem unpractical, but I do think as a skill, learning the speed of execution, actually learning how fast you can do things. As a skill, speed of execution is something you actually mindfully have to work on in order to improve it."*

Furthermore, s/he underlined, "*The only thing that matters is how well do I understand my customers. I think overcoming that involves understanding what really matters and what doesn't, and what matters is; am I building something that people want. If I'm not building something that people really need, none of the other stuff is gonna matter, right? I do think it comes with experience, that it just comes with time*."

As highlighted in the literature, being methodical has been identified as one of the statistically significant aspects of startup development that contributes to better and more positive outcomes; in parallel with this statement, interview insights provided similar results. For example, Academic stated, referring to recovering from setbacks, "*That's certain, let's say, scientific method to this. The thing is that if I start the company, the company starts to fail, I am failing, it is my identity. But if I have two [founders], as we make hypotheses, we make prototype, so we are testing the prototype. You need to be able to decouple yourself and your identity from the company. So, in that sense, an analytical mindset or scientific mindset would be one thing that I'm seeing [as necessary]*.". This also aligns with Ries (2011), Ghezzi (2019), Bocken & Snihur (2020), Camuffo et al. (2020), and Ghezzi & Cavallo (2020) emphasising scientific methods and approaches leading to more positive results.

Investor also shared the reason and necessity of using scientific methods, and being methodical;

> *"You actually need to do a lot of experiment. You need to understand what type of risks you are taking. In the end, if you get it right it, that's good enough. But if you get there solely by luck, it's unlikely that you are going to be successful next time. But if you actually get there through a process, chances that you are actually going to be successful next time is higher."*

Furthermore, Incubation Specialist underlined that being flexible and adaptable according to the usage and outputs of these scientific methods is also vital;

> "*There are people pretty fixed in their mindset, and there are people who are flexible, and that also means that you can quickly go from one idea to another instead of just sticking to one idea. I have seen it so many times that it would be painful for people to let go of their ideas after they have validated that they aren't working. But that shouldn't be painful, you are not your idea. That's a big mistake when people define themselves through this one particular idea, one particular product that they are creating.*"

Stam & Spigel (2018) also highlighted that the inability of startups to adapt and respond to market changes is another significant reason for their failures, which is also associated with the founders' adaptability and flexibility as Incubation Specialist pointed out. S/he also highlighted that understanding the design process and the product development process, which usually includes testing, iterating, and then deciding whether it is working or not, is also helpful for being better prepared and helping overcome potential setbacks. On the other hand, s/he also underlines the possible biases during these processes where the tests can be conducted in a way that ensures that it will work, or provide expected or desired outcomes, which emphasises the importance of objective and quality testing, experimenting to capture the accurate results to make better decisions;

"*Statistically, founders who have done several products and solutions and failed in the first ones are more successful, because they realised and understood what those methodologies meant when you go through it. It's good to know several different methods and tools."*

In alignment with this statement, Conti et al. (2013) also highlighted that serial founders are more likely to secure external funds, referring to the ones who have developed managerial and technical skills, along with a network of contacts.

DeepTech Specialist expressed the difficult nature of creating a balance between continuing as it is, and deciding when to change;

"One very important skill is that whether you are capable of pivoting, that every successful startup has one or several pivots and changes in their lifetime or lifespan. But on the other hand, you should have faith in your business idea, faith in your company that you are doing the right thing, and this perhaps is one of the most trickiest part to understand that ok, we have invested enough, we have tried this approach, from this point forward, it's just burning money and time."

He continued and expanded to the dilemma between having self-belief and coachability, as an extension of Wasserman (2016)'s argument;

"The founder has to have self-belief, the conviction that he or she is doing the right thing, and that contradicts to coachability to some extent, that you need to be able to speak to your own gut feeling, and at the same time, you have to be able to take the counsellor advice. So, those two are contradicting each other a bit, but they are quite often considered equally important."

Following the importance of this balance, Startup Educator drew attention to a crucial point;

"Their [founders'] ability to take critical feedback, and their ability to look at it objectively. Technical skills are important, but they can be learned, but you don't get to the learning part unless you allow yourself to realise that you may be wrong."

This statement also puts a spotlight on self-awareness and personal development, as Incubation Specialist underlined how necessary it is to "*develop in self-awareness, and constantly learning from your mistakes, from other people, from books, courses, and implement your learnings."*

From another perspective, Investor pointed out the importance of team formation and culture, *"You need different skills, but then you also need to have enough commonalities so that you understand each other."*. S/he also stated, recognising the importance of culture, and the significance of communication;

"It's easier for everybody to be in the culture where you don't shoot the messenger."

Similarly, Incubation Specialist emphasised the importance of team formation, and communication quality in the team, *"if you're building a startup, then you've got to have a team, and you need to have good communication.",* s/he continued, also referring to the limited resources as well;

"You first need to find the right people, then you need to be able to communicate to work together with these people, to take the most out of it, but without burning everybody out and yourself."

Cantamessa et al. (2018) also identified organisational challenges, including poor structure, team disharmony, and co-founder misalignments as startup failure reasons. Moreover, the study of Eisenmann 2020 indicates that company culture, role clarity, team conflict, and the "methodical " trait of the founding team have significant relationships with valuation outcomes.

Mentor expressed another perspective, emphasising the founders' central role in the startup;

"*Definitely enthusiasm, like proactive enthusiasm that they [founders] are there to pull the rope, they are the first ones to pull the rope and show their enthusiasm. If the founder is lacking in enthusiasm, then why should others believe that this is a worthwhile investment [time, money, energy]?"*

Similarly, Svetek (2022) also emphasised that founders' motivation plays a crucial role in financing and venture development, especially in the early stages.

Acknowledging how essential communication is in the team, s/he continued, "*It's so easy actually to lose this enthusiasm for others when you don't communicate. And, of course, founders have to have the unbreakable optimism that they give up only when it's reasonable to give up. But until then, they are; ok, this didn't work, now let's think of the next solution; we just confirmed that this thing doesn't work, so let's take the next one."*

About the decision-making processes, it was highlighted by Advisor that there is no universal way or method that works for every situation;

"I don't think there is a single answer like, it's easy to say that you should go and listen to the customers first and foremost. At the same time, there are always some product categories where the customer doesn't know yet what they need. So, I think there isn't a universal answer there. I think it's more like flexibility or adaptability of picking the right tools."

highlighting that what makes the difference is to be able to pick the right tools when necessary.

5.4. What Knowledge and Awareness Would Enhance Founders' Preparedness?

The founders, as evidenced by both literature and interviews, represent the central point of the startups. Their preparedness significantly influences the startups. Therefore, to establish stronger startup foundations that, consequently, have the potential to increase the probability of survival and success of the startups, it is essential to identify ways to enhance founder preparedness.

Incubation Specialist highlighted that human interaction and communication skills are very important for founders, "C*ommunication with your customers, communication with your team, with potential investors, etc. This is super important.".*

S/he also added that using various tools and techniques is beneficial to make everyday life, day-to-day work life as simple as possible. As an example, "*If you have an agreement with*

the team on communication, if you meet always once a week at the same time, if you know which channels to use, how to connect with everybody, that's going to be so much easier. Building some sort of system makes it easier.", emphasising being structured and systemic makes it more efficient, as it was highlighted by the literature as well.

Following the significance of communication, DeepTech Specialist highlighted;

"Communication in the most broad sense. Also, and especially, listening very often the founders, they react immediately that they don't even listen to the end of the feedback or sentence. This kind of ability, you listen and differentiate them like, what is being conveyed in terms of? Because the purpose of the questions is almost never to attack the founder. It's usually that the listener didn't understand what was being told or they didn't understand your pitch. They didn't understand your idea, or they didn't understand what you are saying."

Supporting this statement, Investor pointed out;

"You need to keep in mind that also, in the startups, more difficult issues are almost human issues."

Supporting these similar statements from multiple ecosystem players with different backgrounds, Spender et al. (2017) also highlight the significance of strategic stakeholder management, especially during the early stages of development, which involves recognising and addressing each stakeholder group's diverse needs.

Mentor introduced another perspective of communication, as the importance of being transparent with stakeholders, "*corporate governance; so when there are challenges, how to communicate the situation for example, you see that the results are not promising, and your hypotheses are not confirmed, you have decided that there is no point of continuing, and there is no point of investing further investors money into this startup because all the hypothesis are over. How to now communicate this to the team, to investors, to consumers? This is definitely something that also needs some sort of competence, what is something that you don't need to learn, but just a matter of transparency".* S/he opened being transparency, "*like practicing transparency from the get go, so that everybody understands what are the challenges this startup is facing. What is the PPP; progress, plans and problems? And you can ask for help, this should be shared with everybody. This transparency is more of a value, it's your value."*

Understanding the language of different stakeholders, and communicating with this language was pointed out multiple times as influential and necessary. For example, DeepTech Specialist stated;

"There are multiple reasons; you're living yourself in your own company, you are using abbreviations, not everybody comes with your background knowledge. So, ability to understand the level of your counterpart, to listen, to explain to this particular level, and to recognise that level, I would consider that as a superpower which would make your life a lot easier. That you can talk technical if you're talking to the technical person. If you are talking with an investor or a bank, then you have to talk numbers or economics. If you are talking with journalists, you have to tell a story. So, to understand when should you switch on what persona and what you should tell."

Aligning with this argument, Advisor also underlined the necessity of understanding the customers' language, and communicating in this language, stating;

"The solution side, I think one specific thing is also to learn a little bit about how to speak the customers' language about the problem and the solution. I think being conscious about it [how the industry works, how the customers name things and so forth], learning the terminology, and the sequence of how a potential user thinks about these things is important."

He shared an example for clarity, "*What comes to mind is, like the very R&D heavy product, very often these founders keep talking about in the terms of technology. How and when do you switch to the terms of the business? You might have a fantastic organic chemistry process, but on the other side, what you're building is like a new kind of fuel, and that's the language that matters [for customers].".*

From the team building and team formation perspective, Academic stated that;

"If you are a startup owner, you need to have both to be smart and get things done, but I added a third thing that's important for me; bringing something new to the team. Everybody needs to get things done, but then you need to bring something that team does not have."

Accelerator CEO also expressed similarly;

"Number one, complementary skills, they [co-founders] should have something that I don't in a sense, that depending on the business, it might be that I know how to build the business, they know how to build technology or vice versa that would be the number one."

S/he also addressed the quality of the work of the potential co-founder, *"shared understanding on the level of excellence at what we are doing. You admire the way that they do their work, that they can deliver something that you can't ".* Continuing, s/he added, *"compatibility in values, in how we work, in who we are as people. So, do I like them as a person, would it be nice to come to work and work with them every day?".*

Academic also strongly suggested that there should be multiple founders, with diverse backgrounds, "*First of all, it's plural founders. If you want to see successful founders, if you want to have resilience or antifragility, then it helps to have small number of founders, two or three [with diversity]. Diversity that you have different professional backgrounds, you have different national backgrounds, different language skills, different point of views."*

From the customer-centricity viewpoint, Accelerator CEO provided insights aligning with Baldassarre et al. (2017) and Szathmári et al. (2024);

"Skill of understanding your customers, that's the one thing you need. Everything else can almost be outsourced, but you need to be the absolute expert in what is the problem of your customers, that you understand exactly what are the motivations, what are the pain points, and that's what you need to be great at. Financial calculations and pitch decks, you can always get extra help for those, but the only thing that will save you is knowing your customers."

Mentor followed with, supporting this statement;

"One is how to be 100% customer-centric, what does it actually mean to be customer-centric and really understanding the concept around it. For example, when I started my third startup like three years ago, we also pivoted a lot. What we did; we implemented Google Ventures Design Sprint methodology. You learn those methodologies help you to be really customer-centric, so that you don't need to develop code in order to get feedback. One thing that you are curious and you are not afraid to ask feedback."

Academic stated, in relation to using methodologies, aligning with Ries (2011), Blank (2013), Bocken & Snihur (2020), and Camuffo et al. (2020);

"Being methodological is something that I think everybody should have as a founder. Then we can hire people who are not that good in the methodologies. If you have a backbone in the company, the structure of how it works, I also like to think that, structure builds agility."

He continued, referring to customer-centricity;

"I still think that if you can test, you should test, and don't think that you are too smart so that you can outsmart the world, and especially outsmarting your customers is a really bad idea. It's better to understand the customers than try to outsmart them."

Referring to founders' internal qualities that they bring to the table, Advisor highlighted the necessity of being balanced in believing in own vision and being adaptable according to feedback and new information, stating;

"There is probably something around being systematic, a little bit more systematic and structured. Because there is a balance between how do you react to what you're hearing from the market, versus how do you hold true to your vision? Neither extreme is good. So, it's finding a good rhythm of how you build structure in your search for the repeatable model that you try. Enough you iterate and take feedback, but at the same time, you're still moving towards the vision and can separate the feedback that is not relevant."

Regarding the misconceptions about product quality, s/he added, "*I think that's a very common misconception, especially technical founders often think that it's important to build the great product.",* and advised that the overall success of the company is more about getting people excited about the product, even if it's mediocre at the beginning, rather than the quality of it, referring to that there will be limited resources, and the product is more like painting a picture of something that doesn't fully exist yet.

Referring to founder-market fit, aligning Wasserman (2016), Kopera et al. (2018), Hashai & Zahra (2021) that they also emphasised founder's prior knowledge specific to the industry where the startup operates, significantly influences the startup's knowledge base formation, Accelerator CEO mentioned that domain knowledge plays a positive role in understanding the actual needs of the customers, and solving the problem, "*Domain experts, so the founder problem set is really good. I think that increases the likelihood of them being the right founders to solve the problem, doesn't still say that they have the right capability to be a founder in general.*", highlighting that having domain knowledge is not necessarily enough and does not mean that the person has the other necessary attributes or qualities that are

essential for being a startup founder. S/he also supported that domain knowledge can be acquired, and doesn't necessarily have to come by default, except in some specific cases; "*You can become really obsessed with the topic and learn everything you can about it. And when you combine that with, let's say great startup skills, ability to learn fast, you understand the basic principles and the anatomy of the startup, so you know how to build one. I do think, with that combination, pretty much anyone can build anything but excluding, let's say, deep tech, science or research-led projects where you obviously need domain expertise at a different level.".*

Referring to decision-making practices, Incubation Specialist pointed out that the founders need to focus on understanding what decisions are going to be minor, meaning not being too influential and may be delegated, and which decisions are actually important, irreversible, and can potentially affect a lot of other parts of the startup. As an example, s/he shared, *"If they have to decide between building the product or validating the MVP with the customers; I think that if you choose building the product without talking to your customers, then that's a pretty serious decision that might potentially lead to to the failure.",* which has been acknowledged as one of the most common failure reasons by the literature as well.

Academic, referring to the decision-making process, emphasises that founders should know what and how to prioritise;

> *"Another really important thing for startup founders is things that you can control, things that you can influence, and things that you cannot control at all."*

This approach aligns with Effectuation elements Bird in Hand and Pilot in the Plane principles (Sarasvathy, 2001; Sarasvathy et al., 2014).

DeepTech Specialist, emphasising the nature of startups with limited resources, added;

> *"You're constantly choosing and prioritising what to do, and since you are working with limited resources, as always as a startup, decision-making is crucial. What should we do? And even more important is sometimes what shouldn't we do?"*

Mentor highlighted that not all problems require attention right away, and underlined the importance of prioritisation;

> *"One of the skills is to understand where to be proactive and where to be reactive; because some problems tend to solve themselves. I see a lot of founders thinking that they have to solve it right away, but sometimes there is a better time for solving this problem."*

Furthermore, the interviews revealed that the concept of continuous learning was a recurring theme, aligning with the literature underlining the positive effect of learning from failures, mistakes, and feedback. This highlights the fact that the startup environment is in a state of constant change and evolution, with uncertainties that founders must be prepared to face. In order to be able to deal with these challenges, it is therefore essential that founders adopt a mindset of continuous learning. Besides the necessity and importance, DeepTech Specialist pointed out two important points of this process;

"Becoming more experienced is inevitable, that it happens, you can't avoid it. Whether you are learning, that's a different question."

And;

"[In] modern times, maybe even it becomes more relevant to unlearn some of the skills. Something that made their previous startups successful, might not make their new startups successful."

In relation to the fast-paced nature of startups, Accelerator CEO reminded that startups are in constant change in short-term cycles;

"Startup cycles are supposed to be really short. I do believe in the saying that premature optimization is the root of all evil, which I learned that at a startup, you're not supposed to be planning ahead for 24 months because you have no idea what's actually going to happen then. But you're supposed to be focusing on; can we create growth right now? If not, why?"

S/he also shared another practical example showing that there are things founders can acquire either by experiencing themselves, or with the guidance of someone who has experienced that aspect, sharing; "*I would say that we spent quite a lot of fundraising without understanding the dynamics of a fundraising process properly. I think we did waste quite a lot of time in, let's say, not understanding that it is the job description of a venture capitalist to take meetings and be nice to founders even when they have no intention of actually investing.*".

Mentor also shared another practical and necessary aspect as an example; *"Finances, you need to know the metrics and you need to understand how the CAP table is formed, how to put your finances together, how to forecast. You don't need to do accounting, but you definitely need to understand what is written in the balance sheet and what is written in the profit report. So those things CEO or a founder needs to know."*

Emphasising the significance of self-experience and learnings, not being dependent on external sources constantly, DeepTech Specialist highlighted;

"Serial founders get the paperwork done, or they at least eliminate some of the obstacles, and they are better equipped to cope with NOs from the investors or some early feedback from mentors. So, you should have some experience. You should listen to others, but at the same time, nothing replaces your personal, kind of skin in the game, or personal experience."

Landström, Harirchi, and Åström (2012), also argue that inexperience is a critical factor and reason for startup failures, especially in early-stage.

5.5. Founder Resilience, Well-being, Efficiency and Burnout

Analysis of interview data shows that the nature of the startup environment is a combination of constant uncertainty with limited resources under ever-changing dynamics that require founders to pay extra attention to their own and team members' well-being. Incubation Specialist described being a founder as;

"It's (being a founder) incredibly difficult, on all levels. On physical, and on psychological levels. You're getting bad feedback, you're getting problems all the time,

you're getting NOs, etc. This is what they're (founders) going to have to do for several years until that company grows. But at the same time, it's incredibly impactful."

Referring to potential burnout risks, s/he highlighted the importance of well-being skills and self-care practices, that founders usually keep high performance for long periods of time, sometimes without realising, and also they are expected to perform high, so they need to be able to keep their well-being in check, and understand how to take care of their own well-being to keep being efficient. S/he suggested using several techniques, like how to receive feedback (not taking feedback personally) and how to ask for feedback, which would make the process easier.

Aligning with this argument, Investor also highlighted;

"Founding a company is really fun, but it's really stressful time. Basically, both your mental, as well as your physical health take the pressure. It's actually a much larger issue than what is described. You need people who actually have figured out the way how they get rid of the stress."

He also underlined the nature of startup development as long, difficult and with constant challenges. In relation to these arguments, s/he pointed out the fact that;

"It's not only that can you do it? It's actually about can you enjoy it?"

In parallel, DeepTech Specialist added;

"*I think it's the motivation, or you have to have a quite strong personality that entrepreneurship is not for faint-hearted. In a lot of cases, it's not personal, but it doesn't make it any easier, it's a tough road. Things can change very quickly. It's often unhealthy in terms that you have to go through long hours, especially with international teams. So, if you come from a system which is more structural that you have been working like 9 to 5, then this transition can be difficult.*"

Acknowledging the mental challenges, s/he also stated, "*How you're building relationships, it's psychological, you might not be ready for it, that you get so many NOs or rejections; you take them personally, and you cannot distinguish what is personal, what is purely business, or just bad luck. You're holding them all together, and it can snowball in a very wrong direction.*". S/he pointed out that the early days are stressful for everybody and expressed that all the founding team, including the CEO, should have resilience. S/he added that self-observation or monitoring is important for finding the balance, "*It's easy to say, but it's very difficult to achieve*.".

Similarly, Mentor stated;

"*Building the startup is like being in constant crisis, it's like crisis management every day, and it does put extra burden, extra requirements on the founder. I think that this is one of the reasons why so many founders burn out, that they don't think about those things at once. They are in this crisis situation, meaning building their startups, they don't even know that this is something they should deal with.".*

On how to cope with these challenges, s/he added, *"It's more about your understanding of yourself and knowing how to calm yourself. These are related to mindfulness, self-awareness, stress management. Another thing is mental resilience, or how to protect yourself against*

negative feelings.", including living with a pool of unknowns that may affect founders' confidence and insecurities, which may potentially cause making mistakes.

Besides these challenges, Startup Educator added the emotional aspect, "*I think one of the reasons is that even though you know something, it makes sense, but as soon as the emotions kick in, your vision gets blurred. And you need to still be able to remain operational."*

Following this statement, Mentor suggested that strategic thinking is a way to cope with these emotionally challenging circumstances, *"strategic thinking definitely, when things are challenging, emotions might take over."*

Addressing the constant sense of urgency during startup development and highlighting that founders should be aware of what actually is urgent and what is not, DeepTech Specialist stated;

> "*One thing is, underestimating the effect or impact of long-term developments and overestimating the short-term developments. In startup life, everything always seems urgent. In reality, very few things are really urgent. So, the sense of urgency is misleading, and you can really burn out yourself and your teammates relatively easily if you don't keep yourself in check."*

Considering the importance and acknowledging the significance of this topic, Mentor argued that, *"But most of the accelerators don't deal with that aspect at all. It's all about how to find the right business model, how to determine your persona; it's all hard topics. But we have those hard skills and soft skills, and no one is teaching you the soft skills, like how to deliver bad news to your investor, for example, or how to trigger change in the team, or how to be like a passionate leader? Those things are rarely in the curriculum of accelerators or incubators or these programs.",* highlighting the clear need for improvement in this area.

5.6. Trainable Founder Attributes Table and Categories

The trainable founder attributes (skills, capabilities, and competencies) that are associated with common startup failure reasons, and have the potential of enhancing the preparedness of the founders, by extension helping to establish stronger startup foundations, have been elicited from the literature review and presented to the interviewees for categorisation. The table and the definitions of the attributes can be found in Appendix B.

Categories:

EF: Every founder should have, essential.
FT: Founder team should have, essential for startup but not all team has to have.
FC: Founder in CEO role has to have.
NH: Nice to have, not a must for the founder team but would be beneficial.
NN: Not necessary, if applicable.

The numerical results indicate the total count of selections of each category by the interviewees. For instance, a value of 5 for "EF" signifies that five interviewees selected "every founder" should have this attribute. In some instances, both FT and FC were selected concurrently, indicating that the acting founder-CEO should possess this attribute, even if it exists within the founding team. Additionally, it was emphasised that, for example, founder-CEO is generally the role that is responsible for networking and stakeholder engagement, yet

all co-founders should be able to contribute to attracting quality people in their own fields, like CTO or CMO should also be able to function as the same as CEO in their own fields and create relationships. Consequently, the total values are higher than the interviewees.

Table 3: Trainable Founder Attribute Categories and Results

	EF	FT	FC	NH	NN
Problem Identification	5	3	2	-	-
Solution Ideation	3	5	-	-	-
Execution and Development	2	7	1	-	-
Business and Operations	1	6	6	-	-
Financial Capacity	1	6	7	-	-
Network and Stakeholder Engagement	2	4	6	-	-
Domain Knowledge and Market Understanding	2	6	1	-	-
Being Strategic and Analytical	4	3	2	-	-
Adaptability and Resilience	8	-	-	-	-
Learning from Feedback and Coachability	7	1	-	-	-
Learning from Experiences	8	-	-	-	-
Openness to Newness	5	3	-	-	-

These attributes are analysed in three subcategories as;

Primary Attributes: If the value of the attribute for that category is higher than both other categories.
Secondary Attributes: If the value of the attribute for that category is higher than one other category.
Tertiary Attributes: If the value of the attribute for that category is lower than both other categories, but still has a value.

Example; “Problem Identification” is “Primary” for “EF” because “5” is higher than both “3” and “2”. “Secondary” for “FT” because “3” is higher than “2” but not the highest among all. And, “Tertiary” for “FC” because “2” is the lowest among all but still has a value.

EF: Every Founder

Primary Attributes: Problem Identification, Being Strategic and Analytical, Adaptability and Resilience, Learning from Feedback and Coachability, Learning from Experiences, Openness to Newness
Secondary Attributes: Solution Ideation, Execution and Development, Domain Knowledge and Market Understanding
Tertiary Attributes: Business and Operations, Financial Capacity, Network and Stakeholder Engagement

FT: Founding Team

Primary Attributes: Solution Ideation, Execution and Development, Business and Operations, Domain Knowledge and Market Understanding
Secondary Attributes: Problem Identification, Financial Capacity, Network and Stakeholder Engagement, Being Strategic and Analytical, Learning from Feedback and Coachability, Openness to Newness
Tertiary Attributes:

FC: Founder CEO

Primary Attributes: Business and Operations, Financial Capacity, Network and Stakeholder Engagement
Secondary Attributes:
Tertiary Attributes: Problem Identification, Execution and Development, Domain Knowledge and Market Understanding, Being Strategic and Analytical

In addition to the categorisations, feedback has been collected about the selected attributes, the table formation, definitions, and the categorisations. Multiple interviewees mentioned and acknowledged that in the early stage of startup development, almost never everything is covered, so there is always something missing, and the table captures the overall necessary attributes. Emphasising the importance of the team first, followed by execution and the third as the idea, one interviewee underlined that if the combination was a good idea with bad execution and a bad team, then the startup dies, referring that a good team can turn a bad idea into a good idea, by identifying the need and provide a fitting solution. Related to this argument, “Team building, leadership and managing a team” was suggested to be considered under its own category rather than being under networking or stakeholder engagement, emphasising that every founder should have team building qualities and team synergy because founders, as a team, need to click together, and also need to build their own teams in the area they are responsible for; tech, business, operations, marketing, etc. Founders need to work together quite often, on a daily basis, and with their own teams that they are usually leading.

Additionally, another suggestion was about “decision-making”, referring to the execution itself being more important than the development, in the same way, the team building in the early startup stage is the highlight or the focus area but currently under business and operations. As underlined, team building and execution are the two most critical aspects of the early life of a startup. It was suggested that if founders don't focus on these two aspects, they are not going to survive for very long.

Moreover, “problem validation” was highlighted that many teams misunderstand “problem identification” and “problem validation", which can help to clarify to study it under its own category. It was suggested that “actually validating their understanding of the problem” makes everything much easier for founders. Also, “communication” was another suggestion that can be analysed under a separate category. Another note worth mentioning is that “technical & product development skills”, if separated from its current subsection, can be considered as “nice to have”, where founders can cover those by hiring, which also applies to “utilising relevant methods and frameworks”, again, in case of separation from its current subsection.

6. Discussion

The existing literature contains extensive research on the reasons for startup failure and the characteristics of founders. However, there is a significant gap in the literature focusing on the association of these failure reasons with the founders in a trainable approach and how to address these challenges. For instance, the literature indicates that serial founders who have previous experience from their previous ventures have a higher chance of success

(Cope, 2011; Landström, Harirchi, & Åström, 2012; Conti et al., 2013). This suggests that there are additional qualities, learnings, and attributes that have been gained during the process of the previous ventures. However, the existing literature does not adequately address the question of which specific attributes increase the likelihood of success, nor does it provide guidance on how to increase the awareness of these attributes to better prepare founders for the challenging startup development process.

Given the lack of research on this topic in the existing literature, the discussion section presents and revolves around the author's synthesis of the combination of the analysis of both literature and the qualitative data collected through interviews. This analysis reveals that there are highly repetitive startup failure reasons that can be addressed by enhancing founders' preparedness through trainable attributes that are influential on their startups' trajectory. However, it can be argued that this topic has not yet received the attention it deserves.

Firstly, one of the common startup failure reasons is that founders start with an idea, which is generally a sort of solution or offering to an unvalidated problem, need, want, or opportunity. Furthermore, in combination, founders do not show flexibility or adaptability when necessary, such as evolving and/or pivoting according to market reactions, results from data, or feedback from customers, advisors, investors, or other potential relevant stakeholders. A common misconception is that the value of the idea itself is the determining factor. However, as evidenced by the literature, successful ecosystem practices, and supported by the interviewees, what actually matters is to identify and figure out where this idea is coming from and what is the underlying reason that created this idea in the first place, not the idea itself. As has been highlighted in both the literature and by the interviewees, this can be analysed under product-market fit and can be broken down into multiple root causes (Landström, Harirchi, and Åström, 2012; Bernstein et al., 2014; Nguyen-Duc et al., 2017; Cantamessa et al., 2018).

One approach that becomes apparent is customer-centricity. It is essential to understand the actual problems, needs and wants of customers in order to offer viable solutions. Alternatively, it is pivotal to identify whether there is a big enough need for any solution that a startup is planning to provide. It can be argued that, in the majority of cases, given the high failure rates of startups, which are estimated to be between %80-90, it may be vital to realise fast that the solution provided is not needed or that the need is not significant enough to justify further investment of time, energy, and money. Pivoting after this realisation, or concluding the project could be a more prudent course of action than continuing to invest these resources in a solution that may not be viable. It is important to acknowledge that startups operate within a limited resource environment, and the opportunity cost of every move and decision is considerably high.

This approach involves the active involvement of customers and other relevant stakeholders in the process of testing, receiving feedback, and iterating in a constant manner. This approach has also been highlighted as being methodical, utilising scientific methodologies, approaches and mindsets such as setting hypotheses, testing these hypotheses, receiving results (feedback, market reaction/response), and applying these learnings for the next iteration in order to achieve better results. These approaches, including but not limited to Lean Startup and Design Thinking, have been widely observed to be employed and utilized by successful startups, and have been highlighted in the literature as well. These scientific

and experimental approaches have been validated to provide superior results for startups. These approaches, methodologies and frameworks facilitate the identification of underlying problems, needs and wants, while also providing practical tools and processes for ideation around alternative solutions. This enables startups to have a higher chance of building a better-fitting solution to address the identified and validated problem (problem-solution fit).

Another common misconception is that a validated problem and a fitting solution are sufficient to turn it into a business. However, for a startup to be able to grow, become sustainable and scalable, there needs to be a viable and well-functioning business model(s) that has to be repeatable on a large scale. The business side of the startup is often overlooked and considered as not as necessary as the technical part. However, it is the business side that delivers value to customers and captures the return value from customers (Evans et al., 2017; Camuffo et al., 2020; Ghezzi & Cavallo, 2020; Lovrincevic, 2022).

As previously stated, startup development is a demanding and challenging process that requires various skills, capabilities, and competencies to cope with the constant uncertainty, limited resources, and ever-changing environment. This is why having a well-functioning and compatible founding team is considered as an essential factor and a necessary starting point. It is also highlighted that the founding team members should have diverse backgrounds and compatible attributes, as this helps to cover different areas of startup development and also reduces the external dependency of the startup.

The results of Table 3 demonstrate that none of the elicited attributes have been found as “nice to have” or “unnecessary”. The optimal team formation can be analysed by examining the combination of the “**Primary Attributes**” of each category;

Primary Attributes for Every Founder: Problem Identification, Being Strategic and Analytical, Adaptability and Resilience, Learning from Feedback and Coachability, Learning from Experiences, Openness to Newness, Being Strategic and Analytical, Adaptability and Resilience, Learning from Feedback and Coachability, Learning from Experiences, Openness to Newness

Primary Attributes for Founding Team: Solution Ideation, Execution and Development, Business and Operations, Domain Knowledge and Market Understanding

Primary Attributes for Founder CEO: Business and Operations, Financial Capacity, Network and Stakeholder Engagement

The results show the necessary qualities for an ideal team formation. However, in reality, that differs, considering the limited resources of a startup and team size, especially in the early stages. This fact highlights the necessity and importance of quality and accurate communication within the startup and also with the external network, with potential mentors, advisors, investors, future co-founders or possible hires.

Another crucial finding is that considering all the dynamics discussed so far, it becomes apparent that the founders’ resilience, self-awareness, self-care, well-being, as well as coping strategies for potential burnouts are not mere concerns that should be addressed "at a later stage when time permits", rather, they fundamentally influence all the aspects under discussion, including but not limited to the quality of decision-making, internal and external communication, team building, relationship and network building, the efficiency of the

founder and the team, and so forth. A well-functional founding team also has the potential to contribute to this aspect by establishing a system or mechanism that enables co-founders to monitor and regulate the founding team's well-being in check at both the team and individual levels.

Founders, in particular those who are first-time founders, are prone to making premature mistakes due to a lack of experience and knowledge. While knowledge can be developed to some extent, experience is a different matter, as highlighted by the literature and the interviews. The interviews have identified three types of experience that can be utilised:

1. Obtaining experience through external guidance, advice and support from stakeholders, including co-founders, board members, advisors and mentors.
2. The process can be experienced in a real-life setting, with a safety net of an environment and network with relevant knowledge and external experience. This could include incubators, accelerators or other supportive organisations.
3. Experiencing the process in a real-life scenario with minimal external assistance as the founding team.

While the safety net option (2) appears to be an optimal combination with obtaining through stakeholders (1), it is worth considering that potential founders may require pre-knowledge and pre-experience to fully understand, realise, and appreciate the necessity for this option in the startup context. For example, to be able to attract compatible co-founders, advisors, or mentors, founders need to possess certain qualities, including startup-related and founder-related. In order to gain access to an incubator or accelerator, the startup itself or the founding team must meet the requirements of that organisation. This necessitates the prior knowledge and awareness required to meet those requirements being in place before that point. Furthermore, it was argued that incubators and accelerators ideally provide this safety net, but may be lacking in terms of preparing founders in various aspects, including having more focus on the startups themselves than the founders; as the study clearly highlights, founders influence their startups more than their startups influence the founders, missing the point that founders are not their startups, and they shape the startups.

7. Conclusion and Recommendations

In the context of the startup ecosystem, it is evident that there are limited resources available for distribution. Historical data and private and academic research indicate that the majority of startups that benefit from these limited resources, will fail. It is evident that the creation of more startups is not the solution. A small proportion of these startups may have the chance to address a pressing and unmet need or solve a significant problem, while the majority will fail after using the already limited resources dedicated to them. It can be argued that what is required is:

> Better-prepared founders who will utilise startups to address big enough and validated problems to create the necessary innovative solutions we need as a whole; as economy, society, industry and environment.

It can be argued that the prevailing perception and practices in the contemporary business environment revolve around the concepts of "idea" and "startup." This approach necessitates a paradigm shift towards a focus on "problem" and "founder." As has been repeatedly

highlighted, this understanding and focus remain a significant challenge, representing one of the most common causes of startup failure.

For the purpose of practical application and as a potential alternative method for founders, the following framework can be employed in combination with elements from Lean Startup, Design Thinking, and Effectuation.;

Startups generally start with an idea, but as discussed, what actually matters is the root problem, or need that caused this "idea" to emerge in the first place, not the idea itself. So, the "idea" step is step 0 (zero);

0. **Having an "idea"**.

Having an idea is useful to explore the underlying problem or need. But, as it's identifying problems and needs that actually matter, "not having an idea" is not an obstacle for a potential founder; the actual process starts with the problem or need identification, so founders can start from this step, observing problems and needs around them, they can also relate to. So, the step one;

1. **Root**:
Identifying and understanding the root (underlying) problem or need that caused this "idea" to emerge.

This step is a combination of the **Empathise** and **Define** stages of the **Design Thinking** framework. After identifying the root problem, or need, it is necessary to validate to see if it actually exists in a way that would be worth dedicating resources to and creating solutions around it. So, the step two;

2. **Is it Big Enough?**:
Validating that it's a big enough problem or need worth dedicating resources to create solutions around it.

It is crucial to conduct user research at this step, it is essential to identify potential customers and apply effective user research techniques and practices in order to obtain quality feedback and information. It is also crucial to note that validation of the problem itself is not sufficient as well; it is equally important to validate the market size and the business potential. Validation of the problem is the initial step, as if it does not exist, there is no market and no business. **Lean Startup Canvas** from **Lean Startup** framework is recommended to be utilised in this step.

Once the potential for a problem or need has been identified, it is more effective to explore and identify multiple alternative solutions, which may include the initial idea, rather than starting work on the initial idea itself. This approach has been shown to be more successful in addressing the problem or need. So, the step three;

3. **Ideation**:
Explore and find multiple alternative solutions addressing the problem.

This step is the **Ideate** stage of the **Design Thinking** framework. At this step, there are a number of alternative solutions that can be tested to identify the most suitable one for the problem. This process involves iterative testing, where the additional feedback, results, data, and information from each iteration are used to improve the next iteration until a decision can

be made whether there is potential or not, for each alternative solution. Given the limited resources and the necessity of quick iterations, these tests are performed with, ideally, various and relevant forms of early prototypes at first, then with MVPs when a solution has sufficient confidence to justify the allocation of additional resources. So, the step four;

4. **Iterative Testing**:
Test alternative solutions through iterations: First, with early prototypes using less resources. Then, with MVPs for promising solutions that have enough confidence.

This step emphasises the **Prototype** stage of the **Design Thinking** framework at first with minimal resources, then utilising the **MVP** approach of **Lean Startup** for promising solutions with enough confidence according to the results of **Testing**, which emphasises the testing practices of both Design Thinking and Lean Startup. It's crucial to be able to measure which solutions are superior to others. This necessitates the utilisation of relevant metrics and the ability to interpret the results. Since there is no one-size-fits-all solution regarding this step, it is recommended that well-known good practices, frameworks, and methodologies be utilised according to the nature of the testing methods and solutions provided.

Ideally, a solution will be identified which will receive sufficient traction and confidence to move to the next step. So, the step five;

5. **Problem-Solution Fit**:
Identify the best-fitting solution for the problem.

Considering the fast-paced nature of the startup environment and the limited resources available, this step has particular importance and represents a significant decision, as it determines the allocation of resources. Therefore, the quality of measurement and interpretation during the previous step is vital, as it will determine this step.

After identifying a promising solution that has potential, then there is the need for quality execution. Yet, it is more important to have the balance between quality and the speed of execution; arguably, the speed of execution with good enough quality (depending on the nature of the solution; it varies for a social network and medical device) is proven more efficient that it offers flexibility, more open to iterative changes, improvements, and can evolve according to the customer feedback and market response. So, the step six;

6. **Execute Fast**:
Speed of execution with good enough quality is more efficient; it offers more flexibility and adaptability through iterative changes according to customer feedback and market response.

Even if a solution may be considered perfect at a particular point in time, it may not remain so for an extended period. Technology, society, industry, economy, market, problem, and solution landscapes evolve and change continuously. Consequently, a process of continuous iteration is essential to remain up to date with potential changes, developments, and "newness".

In order to deliver the value created by the solution on a larger scale, the startup must identify and implement one or more suitable, repeatable, and scalable business model(s). So, the step seven;

7. **Business Model Innovation**:
Iterate to find the most suitable, repeatable, and scalable business model(s).

As has been previously highlighted, it is vital to adopt a continuous iteration approach in order to keep up with the ever-changing landscape. This principle also applies to business models, which also evolve and change over time. It is, therefore, essential to apply constant testing and iterations to business models as well.

Once the best-fitting solution has been identified and executed fast with good enough quality, and a suitable business model, the key factor that defines the startup's trajectory is achieving product-market fit. So, the step eight;

8. **Product-Market Fit**:
Keep iterating until achieving product-market fit.

It is important to recognise that achieving product-market fit does not guarantee that the product will remain aligned with market needs over time. In order to maintain a competitive advantage, a startup must continuously offer solutions that address the evolving problems and needs of the market. This requires the use of relevant technologies and a willingness to innovate and evolve in response to market changes. This step emphasises the **Build, Measure, Learn (BML) Loop** from **Lean Startup** framework. So, the step nine;

9. **Evolve, Innovate, Iterate.**

The solution itself, the technology, the market need or problem, the business model, or some other factor may be the catalyst for change. Regardless of the specific cause, startups must adapt and evolve in order to remain competitive in a constantly evolving environment. This is a universal fact that applies to the smallest startups as well as the largest corporations. Those who can adapt, evolve, and differentiate in this changing environment have a greater chance of competing and gaining an advantage over their counterparts.

As repeatedly emphasised in the interviews, the startup environment is characterised by high demands, rapid change, and a high degree of uncertainty. Founders are expected to perform at a level that is typically higher than that expected of business norms. This requires founders to be aware of the importance of maintaining their and their team's well-being to mitigate potential burnouts. So, the core awareness;

00. **Resilience:**
Utilising self-awareness, self-care, well-being, and stress management techniques to control potential burnouts.

Furthermore, the role of a startup founder represents a distinctive form of entrepreneurship, a more challenging path than that of conventional business owners. However, an entrepreneurial mindset, validated good practices and methods also apply to the startup founders. The combination of the analysis of the literature review and the collected qualitative data demonstrates similarities with the previously discussed **Effectuation** methodology by Sarasvathy (2001). In consideration of the multifaceted responsibilities and potential challenges associated with startup founders, Effectuation principles offer a foundational understanding and mindset that enables founders to approach changing circumstances in a variety of ways. As demonstrated by the research, possessing self-awareness of one's own skills, capabilities, and competencies, as well as one's surroundings,

is a crucial quality for a startup founder, which aligns with the Bird in Hand Principle. Another example is the Affordable Loss Principle, which emphasises the importance of taking calculated risks and leveraging limited resources in creative ways. This is a constant challenge for startup founders. In order to succeed, startup founders must find ways to utilise their limited resources in the best possible way. The Lemonade Principle focuses on being flexible and resourceful in the face of uncertainty and adapting and repurposing resources in response to changing environments. The importance of networking and building relationships has been repeatedly emphasised in the research, with the conclusion that these activities are of significant value to startups. The Crazy-Quilt Principle also emphasises the formation of partnerships based on mutual interests with individuals and organisations committed to jointly creating the future. It is the case that startups are creating the businesses and solutions of the future. In relation to the decision-making process, it was also highlighted that prioritisation is vital for founders. The Pilot in the Plane Principle encourages focusing on the things that are controllable in the environment and leveraging the resources founders have at their disposal.

In order to further enhance the preparedness of founders, a combination of practical and effective methods is necessary to connect them with the knowledge, insights and external experience accumulated in this research, as well as relevant previous research and future research. In consideration of the influences of the surrounding environment on startups and potential founders, which provide access to external learnings and experiences of others, to knowledge that founders lack or are unaware of its necessity, it is possible to utilise building networks and create connections and relationships. Two approaches can be employed at the social and organisational levels. The following proposals represent a synthesis of insights derived from interviews, insights accumulated through the author’s connections to the startup ecosystems in Estonia and Finland, including the startup scene, and the university scene involving the University of Tartu, Estonia, and Aalto University, Finland, and the author’s experiences with ecosystem players and stakeholders. These proposals are not mere hypothetical suggestions; they have been observed, involved, and experienced in applied settings by the author.

Social level: The research demonstrates that experience is a significant factor in the preparedness of founders. This involves not only the founders' own experience but also the experience of others that they can learn from and utilise. Founders require access to different perspectives and experiences from different backgrounds in the ecosystem, including other founders, in order to share and exchange knowledge, insight, perspectives, and experiences. This can be achieved through the establishment of more open and accessible founder communities that support the pre-founder stage of potential future founders. Such communities may facilitate an environment for potential founders to connect with experienced founders and also with potential new founders, to learn, and to explore possible collaborations. This approach can also address the challenge that founders face in connecting potential co-founders with different backgrounds.

Organisational level: The collaboration of incubators, accelerators, higher education institutions such as universities, and investor groups may represent an efficient way to facilitate practical and effective access to knowledge on both hard skills, soft skills, insights, experience, and perspectives of stakeholders and ecosystem players from different backgrounds for potential founders. Furthermore, such collaborations may serve to create a

safety net for founders, allowing them to experience the challenging startup environment in a controlled environment with the necessary tools, connections, and guidance.

How?: Universities and higher education institutions have access to and are more up-to-date with academic research and developments in the field. They also possess a large population of potential future founders, whether as students, researchers, scientists, or academics. However, it is challenging for such institutions to provide the necessary flexible environment with the required constant guidance and relevant active networks. On the other hand, incubators and accelerators have the potential to provide the environment, relevant network access, and guidance that they require. However, the requirements to have access to this environment, network, and guidance create a barrier for first-time founders, since they are not yet equipped with the necessary qualities, attributes, awareness, knowledge, and tools. Furthermore, it was argued that the practices of accelerators are more startup-focused and oriented towards the development of hard skills, with a relative lack of focus on founders and the development of soft skills. Furthermore, investor groups are consistently seeking out startups with high potential. The ideal collaborative scenario would involve all parties contributing their respective strengths. Universities could provide theoretical foundations and knowledge to potential founders, making it more accessible and encouraging potential founders to engage with other ecosystem players and entities. These could include, at the organisational level, incubators, accelerators, and venture capitalists, and at the individual level, successful founders, mentors, advisors, and angel investors. To facilitate this, universities could streamline and accelerate access to their resources and university environment. Incubators and accelerators provide the environment, practical knowledge and experience, relevant networks, and access to mentorship and guidance at the pre-founder level, to some extent. In collaboration with universities, they can provide practical knowledge in university settings through workshops, events, applied courses, etc., where the potential founder population is more accessible. Furthermore, investor groups, with their extensive networks, including connections in both universities, incubators, and accelerators, can facilitate connections between ecosystem players and may provide financial support when necessary as indirect investments for future prospects through better-prepared founders and stronger startups that they will have access to and will be in relation to.

This thesis can be considered a starting point for more comprehensive, founder-focused future research on a larger scale; aiming to explore the most effective, efficient, and influential ways to enhance startup founder preparedness. At the centre of the startup is the founder, and it can be argued that the founder's preparedness sets the foundation of the startup, shapes the trajectory, and highly contributes to the survival, success, or failure of the startup. In this context, future research is essential to gain a deeper understanding of the underlying dynamics, with the aim of enhancing the preparedness of startup founders and, consequently, establishing stronger startups in the future.Future research could be directed towards further analysis of trainable founder attributes and the exploration of ways to equip founders with the necessary attributes. This could include the exploration of ways to increase the mental and physical resilience of founders, address potential burnouts, and sustain efficient and stable performance in challenging startup environments. Another potential area for research and exploration is the creation of more effective and efficient safety nets for potential future founders to experience the startup process and development in a controlled and supportive environment.

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9. Appendices

9.1. Appendix A: Interview Intro

Before we start our discussion, I'd like to frame our conversation around the significance of certain foundational attributes that founders possess internally and bring to the startup development process. We're focusing on trainable attributes such as skills, capabilities, and competencies that can be developed, learned and improved. The aim is to understand which of these attributes are essential in contributing to a startup's development, foundational path, and longevity, and to increase the resilience of startups by increasing the preparedness of the founders. Where:

Skills: Learned abilities that allow founders to perform specific tasks with efficiency and precision.

Capabilities: The integration of knowledge, skills, and behaviour that enables a founder to perform tasks successfully and effectively in various situations, applying abilities in practical contexts.

Competencies: The overall capacity of founders to combine different capabilities and skills to achieve goals and adapt to changing circumstances.

9.2. Appendix B: Interview Questions

The interview questions were selected according to the interviewees' backgrounds and relevance from the below question pool:

1. What are the most common startup failure reasons in your experience?
    1.1. What are the root causes behind these reasons?
    1.2. How much of it is founder/founder team-related?
        1.2.1. What knowledge, skill, or awareness was missing?
2. Can you share an example of how a specific founder skill or competency directly contributed to a failure or success? It can be multiple.
3. What internal founder knowledge/skill/competence do you consider as a 'secret weapon(s)' for startup success?
4. Thinking of successful and unsuccessful startups, what are the founder-related aspects that are significantly influential for each outcome?
5. Can you think of a moment where a gap in founder's capabilities caused a significant challenge to the startup?
6. How a founder should make their decisions? It can be for both quick ones and important ones.
7. What does a founder need, to keep up with the startup's fast, constantly changing and evolving nature?

8. Can you think of any capabilities or skills a founder initially lacked but was complemented by another co-founder or a key team member that significantly affected startup's development?
9. How do you measure a founder's capacity for learning and adapting?
    9.1. What importance does this have in startup’s success or failure?
10. Can you share any insights on what founder attributes have a strong influence both in the early stages and the long-term viability of startups? They can be different for both stages.
11. What founder attributes are consistently correlated with successful recoveries from setbacks?
12. How do you evaluate a founder's fit and relevance to their startup? (Is that the right founder to do that? Can s/he do that?)
13. What missing founder attributes have you identified as a common factor in startup failures?
14. Can you provide an example where a founder's growth in a particular area significantly influenced their startup?
15. What must-have founder attributes have you identified as essential for startup development?
16. When assessing a founder's (co-founder’s) potential, which internal qualities (that they bring to the table) and attributes do you prioritise, and why?
17. What founders do not know about being a founder, and they absolutely should know about?
    17.1. Which essential attributes should founders focus on developing, learning, improving, and eventually having that are critical for their startup’s success or survival?
    17.2. Thinking of the most common startup failure reasons in your experience, which ones are most founder/founder team-related? And, how?

Founders specific:

1. What would you wish you had developed or known earlier in your startup that would have had a significant effect in the early stages?
    1.1. How do you think it would have influenced your startup?
2. Was there ever a moment when you felt unsure of your capabilities during the startup's development, and how did you address and overcome this challenge?
    2.1. What was it?

Investors specific:

1. Can you recall an investment decision heavily influenced by a founder's personal competencies or lack of them? And, why?

2. From your investment history, which founder attributes have emerged as non-negotiable for backing a startup?

Industry Experts & Mentors specific:

1. How do you approach mentoring founders on developing critical but missing capabilities or competencies?
    1. What are the common challenges?
2. What attributes do you focus on when helping founders prepare for developing their startups?

9.3. Appendix C: Table of Attributes

The table consists of trainable founder attributes that are identified and collected from the literature review, which interviewees were asked to fill out. It was performed after the interview to avoid directing interviewees and potentially receiving biased results.

Category (EF,FT,FC,NH,NN)	**Attribute**	**Description**
	Problem Identification	Actual problems, needs and wants of customers, with potential opportunities (Foundation of Product-Market Fit).
	Solution Ideation	Ideating alternative solutions to find the best solution fit to the problem (Problem-Solution Fit).
	Execution and Development	Including technical & product development skills, being methodical, understanding of relevant technologies and metrics, and capability to lead or work with technical teams.
	Business and Operations	Structured and systematic team formation and workflow, business model innovation, utilising relevant methods/frameworks
	Financial Capacity	Understanding how money works, managing key metrics, investment, cash flow, and the ability to secure funding.
	Network and Stakeholder Engagement	Skills in engaging internal and external stakeholders and connecting necessary people to each other and to the startup.
	Domain Knowledge and Market Understanding	Deep(enough) understanding of the industry, market, and competitiveness.
	Being Strategic and Analytical	Utilizing factual information, data and metrics for decision-making processes to formulate and adjust strategies.
	Adaptability and Resilience	Being able to work with constant uncertainty, change and pivot when necessary.
	Learning from Feedback and Coachability	Being open to others' experiences, utilising their learnings, and learning from their feedback.
	Learning from Experiences:	Ability to learn from own successes and failures, understand what went well and what went wrong, and act accordingly.
	Openness to Newness	Being open to new ideas, encouraging contributions from others, and creating an innovative and collaborative environment.

Résumé

TUGEVAMA KÄIVITAMISE ALUSTE LOOMINE: KOOLITATAVAD ASUTAJAATRIBUUDID ASUTATAJADE ETTEVALMISTUSE PARANDAMISEKS

Erdem Güngör

Selles uuringus uuritakse treenitavaid idufirma asutaja atribuute, mis on liigitatud järgmiselt;

Oskused: Õpitud võimed, mis võimaldavad asutajal täita konkreetseid ülesandeid tõhusalt ja täpselt.
Võimed: Teadmiste, oskuste ja käitumise integreerimine, mis võimaldab asutajal täita ülesandeid edukalt ja tõhusalt erinevates olukordades, rakendades võimeid praktilistes kontekstides.
Pädevused: Asutaja üldine võime kombineerida erinevaid oskusi ja võimeid eesmärkide saavutamiseks ja muutuvate oludega kohanemiseks.

mida saab arendada, õppida ja täiustada ning mis on seotud tavaliste idufirmade ebaõnnestumise põhjustega seoses tugevamate startup-aluste loomisega, suurendades asutajate valmisolekut. Uuringus kasutatakse kirjanduses esineva lünga kõrvaldamiseks uurimuslikku uurimismeetodit, võttes kasutusele segameetodite kvalitatiivse uurimisdisaini, integreerides süstemaatilise kirjanduse ülevaate poolstruktureeritud intervjuudega, et uurida treenitavate asutajate atribuutide mõju idufirma arengule.

Kirjanduse ülevaate osa koosneb idufirmade ja idufirmade asutajate definitsioonidest, idufirmade tähtsusest majanduses, tööstuses ja ühiskonnas, idufirmade ebaõnnestumiste fenomenist koos ühiste ebaõnnestumise põhjustega ning asutajate mõjust ja tähtsusest startupi arengus. Pärast kirjanduse ülevaate kaudu levinud käivitamise ebaõnnestumise põhjuste tuvastamist filtreeriti see asutajaga seotud ebaõnnestumiste põhjuste ja nende põhjustega seotud treenitavate asutaja atribuutide järgi. Esilekutsutud atribuudid olid; Probleemide tuvastamine, lahenduste ideed, teostamine ja arendamine, äri ja toimingud, finantsülevaade, võrgustiku ja sidusrühmade kaasamine, domeeniteadmised ja turu mõistmine, strateegiline ja analüütiline, kohanemisvõime ja vastupidavus, tagasisidest õppimine ja juhendatavus, kogemustest õppimine ja avatus uudsusele.

Kokku on intervjueeritud kaheksat erineva taustaga sidusrühma startup-ökosüsteemist, et saada nende kogemusi ja teadmisi seoses idufirmade ebaõnnestumise põhjustega, asutajate seotust nende ebaõnnestumise põhjustega ja võimalikke viise nende väljakutsete leevendamiseks. Analüüs ja järeldused toodi välja intervjuude ülevaadete ja sidusrühmade kogemuste põhjal. Samuti paluti intervjueeritavatel kategoriseerida varem välja toodud treenitavad asutajaatribuudid järgmiselt;

EF: Igal asutajal peaks olema, oluline.
FT: Asutajameeskonnal peaks olema, mis on käivitamiseks hädavajalik, kuid mitte kogu meeskonnal ei pea olema.
FC: Asutaja tegevjuhi rollis peab olema.
NH: Tore, et on, mitte asutajameeskonna jaoks kohustuslik, kuid oleks kasulik.
NN: Ei ole vajalik, kui see on asjakohane.

Neid atribuute analüüsitakse kolmes alamkategoorias: esmased atribuudid, sekundaarsed atribuudid ja tertsiaarsed atribuudid. Iga kategooria **peamised atribuudid** leiti järgmiselt:

Iga asutaja: probleemide tuvastamine, strateegiline ja analüütiline, kohanemisvõime ja vastupidavus, tagasisidest ja juhendatavusest õppimine, kogemustest õppimine, avatus uudsusele, strateegiline ja analüütiline olemine, kohanemisvõime ja vastupidavus, tagasisidest ja juhendatavusest õppimine, kogemustest õppimine, avatus uudsusele

Asutajameeskond: lahenduste ideed, teostamine ja arendamine, äri ja toimingud, domeeniteadmised ja turu mõistmine

Asutaja tegevjuht: äri ja tegevus, finantsvõimekus, võrgustik ja sidusrühmade kaasamine

Teoreetilise raamistiku osa koosneb metoodikatest ja tõestatud headest tavadest, mida edukad idufirmad kasutavad ja ökosüsteemis aktsepteerivad, millele viidati ka arutelu- ja soovitusosades seoses raamistikuga, mida autor soovitab lõputöö lõpus kasutada. Lõputöö lõppes aruteluosaga, mis koosneb kirjanduse ja intervjuu tulemuste vahelisest seosest, ning kokkuvõttev osa sisaldab ka autori soovitusi, sealhulgas raamistikku asutajatele ja võimalikke viise nende treenitavate omaduste teadlikkuse suurendamiseks ja asutajate valmisoleku suurendamiseks.

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Erdem Güngör

21/05/2024