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Faculty of Business Economics

Master of Management

Master's thesis

A study on the hiring practices of innovative start-ups

Mohammad Biparva Razlighi

Thesis presented in fulfillment of the requirements for the degree of Master of Management, specialization Strategy and Innovation Management

SUPERVISOR :

Prof. dr. Stijn KELCHTERMANS



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Mohammad Biparva Razlighi

Abstract

This thesis explores the dynamics of early hiring practices and employee retention in innovative startups. The primary objectives are to understand where early hires come from, what happens to them within the startup, and what factors determine their tenure or turnover. Additionally, the research examines the impact of the founders' managerial backgrounds on these outcomes.

Through in-depth interviews conducted separately with founders and early hires, the study provides a comprehensive understanding of the specific skills and attributes valued during the hiring process. It identifies key criteria that founders prioritize when selecting early hires and investigates how these factors influence employee retention.

Key findings reveal that while existing literature emphasizes the importance of technical skills, founders also highly value interpersonal abilities and cultural fit. The study introduces the concept of dual work environments within startups, termed "Friend Zone" and "Transactional Zone," which significantly impact employee satisfaction and retention. Furthermore, the research applies the push-pull mooring framework to categorize the factors influencing early hires' decisions to stay or leave the startup, offering insights into their preferences and predicting their futures.

Managerial implications suggest that startup founders should balance technical and soft skills when hiring, leverage personal networks and referrals, foster a positive work environment, and adapt hiring practices as the startup grows. Recognizing and addressing the dual work environments can help tailor management approaches to meet the needs of different employees, ultimately enhancing hiring and retention efforts.

This research contributes to the broader understanding of human capital management in the startup ecosystem by offering practical insights and strategies for founders to build and maintain a resilient and effective team. For the first time, this study categorizes early hires with a pull-push-mooring framework, depicting their preferences and predicting their futures within early-stage innovative startups.

Table of Contents

1. Introduction.....	5
2. Literature Review.....	6
2.1. Introduction to the Literature Review.....	6
2.2. Demand Side (Founders of Early-Stage Startups).....	6
2.2.1. What human capital traits do founders of innovative startups look for in hiring their first few employees.....	7
2.2.1.1. Technical Expertise and Product Development.....	7
2.2.1.2 Entrepreneurial Skills and Experience.....	7
2.2.1.3. Networking and Relationships.....	7
2.2.1.4. Adaptability and Learning.....	8
2.2.1.5. Leadership and Management Skills.....	8
2.2.1.6. Diversity of Skills and Perspectives.....	8
2.2.1.7. Cultural Fit.....	8
2.2.1.8. Risk Tolerance.....	9
2.2.2. Startup's Hiring Practices.....	9
2.2.2.1. Strategies to Attract and Retain Talent.....	9
2.2.2.2. Challenges Startups Face in the Hiring Process.....	9
2.2.2.3. Evolution of Hiring Practices as the Startup Grows.....	10
2.3 Founder's Managerial Background.....	10
2.3.1 Tenure and Turnover in Innovative Startups.....	11
2.3.2. Challenges and Opportunities for Innovative Startups Regarding Employee Tenure/Turnover.....	11
2.4. Supply Side (Early Hires).....	12
2.4.1. What is it like to work for an innovative startup.....	12
2.4.1.1. Work Environment and Culture.....	12
2.4.1.2. Expectations.....	12
2.4.1.3. Challenges.....	13
2.4.1.4. Opportunities for Professional Growth.....	13
3. Theoretical framework.....	13
3.1. Research Objectives.....	14
3.2. Research Focus.....	14
3.2.1. First Phase: Beginning of Collaboration and the Influence of Founders' Managerial Background on Early Hiring and Retention.....	14
3.2.1.1. Hiring criteria for early hires.....	15
3.2.1.2. Early Hiring and Retention Practices (What Happened to Early Hires?).....	15
3.2.1.3. Evolution of Hiring and Retention Practices.....	15
3.2.1.4. The Effect of Founders' Managerial Background.....	16
3.2.2. Second Phase: Understanding Early Hire Dynamics in Innovative Startups (Tenure and Turnover Factors).....	17
3.2.2.1. Overall conditions of early-stage innovative startups for their employees.....	17
3.2.2.2. Pull-Push-Mooring Framework (PPM).....	18
3.3. Summarising the framework.....	18
4. Methodology.....	20
4.1. Research Design.....	20
4.2. Data Collection.....	22
4.2.1. Demand Side.....	22
4.2.2. Supply Side.....	23

4.3. Data Analysis.....	25
4.1.1. Thematic Analysis and Coding.....	26
4.5. Reliability, validity, and ethical considerations.....	27
5. Results.....	29
5.1. Beginning of Collaborations.....	29
5.1.1. Description of Early Hires.....	29
5.1.1.1. Joined in the First Year.....	30
5.1.1.2. After the First Round of Funding.....	31
5.1.1.3. Before Big Funding and/or Pre-Acquisition.....	31
5.1.1.4. Founder-Led Hiring and Onboarding (A to Z Hiring).....	32
5.2.1. Hiring Criteria.....	34
5.2.1.1. Hard Skills.....	35
5.2.1.2. Soft Skills.....	37
One other notable code that we identified was people/human skills, which emerged from descriptions such as "go-getters with people abilities," (D1) "human magnets," (D3), "people skills" (D4), and "humanities skills" (D5). Despite the varied terminology used by different founders, we collectively referred to this set of abilities as people/human skills or the collective of all soft skills, recognizing their importance in fostering strong interpersonal relationships and teamwork within the startup.....	38
Another crucial soft skill highlighted by prolific founders like D3 from Bleepe.eu, and D4 from Jogo was self-changeability. This skill was described as especially vital for early hires, as it mirrored the founders' own ability for self-development and transformation. Self-changeability differs from adaptability in that it involves a more profound shift in the individual's approach and mindset, rather than merely adjusting specific skills. This distinction underscores the importance of self-changeability in ensuring that early hires can grow and evolve alongside the startup, contributing to its long-term success.....	39
5.2.1.3. Jack of All Trades.....	40
5.2.2. Early Hiring.....	41
5.2.3. Tenure/Turnover of Early Hires (Evolution).....	42
5.2.4. Evolution of HR Practices.....	44
5.2.4.1. Informal vs. Formal.....	44
5.2.5. Founders' Managerial Background.....	45
5.2.5.1. Academic Vs. Industry Managerial Background.....	45
5.3. Early Hire Dynamics in Innovative Startups.....	47
5.3.1. Working Conditions of Early-Stage Innovative Startups.....	47
5.3.2. Pull-Push-Mooring Framework.....	49
6. Conclusion.....	50
7. Future Research.....	52
8. Managerial Implications and Recommendations.....	53
9. Limitations.....	54
References:.....	55

1. Introduction

Even the greatest leaders need sufficient capital and resources to execute their visions. For an early-stage innovative startup with limitations everywhere, including in resources (Kemell et al., 2020), human capital (Costa et al., 2023) acts as those blood cells that carry the oxygen desperately needed by our organs at peak physical and mental performance.

The world of business today increasingly relies on the success of innovative startups (Saura et al., 2019; Kucherov et al., 2022). These companies act as strong arms of innovation, continuously bringing fresh ideas to disrupt and revolutionize different industries (Choi et al., 2020). However, starting a new business is risky, and the success and survival rates of these startups are dramatically low (Kemell et al., 2020). Moreover, many startups do not last long and need to be as agile as possible to increase their chances of survival and success (Giardino et al., 2014; Skawińska & Zalewski, 2020). Researchers are thus keen to understand what helps startups succeed or causes them to fail.

In the world of startups, much attention has been given to the origins of innovative companies and the assembly of their founding teams (Lebret, 2017). However, there is a gap in research concerning the hiring of the first employees and their career movements. These initial team members are crucial, yet we know little about them. Since startups often begin with just a handful of people (Kemell et al., 2020), it is important to understand the factors that influence how long these early employees stay and what motivates their decisions.

Existing literature highlights the importance of both technical and soft skills in the early stages of a startup. However, it tends to emphasize technical expertise, sometimes overlooking the critical role of interpersonal abilities and cultural fit. This research seeks to provide a more nuanced understanding by categorizing early hires based on their skills and examining the specific criteria founders use during the hiring process. Furthermore, the study investigates the evolving nature of hiring practices as startups grow and scale, from informal methods to more structured approaches involving external agencies and internal HR departments.

The research methodology involves in-depth interviews with founders and early hires from a diverse range of startups, providing rich qualitative data on their experiences and insights. By analyzing this data, we aim to identify patterns and best practices that can inform better hiring and retention strategies. One key area of focus is the concept of dual work environments within startups, categorized as "Friend Zone" and "Transactional Zone." This distinction sheds light on how different workplace dynamics affect employee satisfaction, commitment, and ultimately, their decision to stay or leave.

The findings from this study have significant implications for startup founders and managers. Understanding the balance between technical and soft skills, leveraging personal networks and referrals, fostering a positive work environment, and adapting hiring practices as the startup grows

are all critical strategies for building a strong and resilient team. Additionally, recognizing and addressing the dual work environments within a startup can help tailor management approaches to better meet the needs of different employees.

In conclusion, this thesis aims to provide a comprehensive examination of early hire dynamics in innovative startups, offering practical insights and strategies for founders to enhance their hiring and retention efforts. By focusing on the interplay between skills, workplace environment, and employee motivation, this research contributes to the broader understanding of human capital management in the startup ecosystem.

2. Literature Review

2.1. Introduction to the Literature Review

Innovative startups are key players in fostering innovation, particularly in high-technology sectors. Their role extends beyond generating employment; they significantly influence the quality of jobs, impacting factors like wages, job stability, and work-life balance. Choi et al. (2020) highlight the direct correlation between these qualitative employment aspects and the innovative performance of startups.

Furthermore, several studies emphasize the importance of human capital in determining a startup's success. Unger et al. (2011), Kemell et al. (2020), and Becker (2009) highlight that skills, experiences, and personal attributes significantly influence the outcomes of new ventures.

This insight emphasizes the importance of understanding how startups function and manage their human capital, as these elements are crucial in determining their impact on the economy and society at large. Understanding these dynamics is vital, not only for the startup ecosystem but also for shaping policies and academic research in this field.

2.2. Demand Side (Founders of Early-Stage Startups)

The success of early-stage startups is intricately tied to the profiles of their founders. Research by Unger et al. (2011) suggests that factors such as the entrepreneur's dedication, business expertise, and previous startup experience are crucial. Meanwhile, Baum & Locke (2004) add that the age and technological training of the entrepreneur also play a significant role. These studies collectively highlight the importance of the founder's personal and professional attributes in shaping the destiny of startups, especially in their nascent stages.

2.2.1. What human capital traits do founders of innovative startups look for in hiring their first few employees

In the context of innovative startups, the focus on human capital during the initial hiring phase is crucial. These startups often start with a small, versatile team. Kemell et al. (November 2020) emphasize the importance of having a team with diverse capabilities and leveraging professional networks for technical competence. Becker (2009) highlights that human capital, which includes skills, experiences, and personal attributes, plays a vital role in a startup's success. Moreover, Colombo & Grilli (2005) point out that the technical expertise, industry knowledge, and entrepreneurial spirit of the founders and early team members are instrumental in shaping the startup's trajectory, innovation capacity, and market entry. This underscores the significance of human capital traits in the foundational stage of innovative startups.

2.2.1.1. Technical Expertise and Product Development

The technical expertise of the their team is a cornerstone in developing a viable and competitive product in high-tech startups. Colombo and Grilli (2005) underscore the value of founders' technical knowledge in this sector. A strong technical background equips founders and early team members with the ability to innovate and create technically sound solutions, giving their startups an essential competitive edge in the market. This expertise is not just a skill set; it is a critical asset for product development and overall startup success (Kemell et al., 2020; Gifford et al., 2021; Marvel & Lumpkin, 2007).

2.2.1.2 Entrepreneurial Skills and Experience

Entrepreneurial skills and experience are also vital components of human capital in startups. A study by Unger et al. (2011) found that human capital, in terms of entrepreneurial skills, has a positive impact on the success of new ventures. Founders with prior startup experience or who have been involved in launching new products can navigate the challenges of starting a new business more effectively (Baum & Locke, 2004; Dencker & Gruber, 2015; Junior et al., 2021).

2.2.1.3. Networking and Relationships

The ability to network and build relationships is another aspect of human capital that can benefit innovative startups. A study by Stam et al. (2008) emphasizes the role of networks in accessing resources and knowledge, which can be particularly important for startups that are trying to establish

themselves. Strong networks can help in securing funding, finding talent, and acquiring customers (Albourini et al., 2020; Cadorin et al., 2021; McCarthy et al., 2023)

2.2.1.4. Adaptability and Learning

The fast-paced nature of the technology sector requires founders and their teams to be adaptable and capable of continuous learning. A study by Marvel and Lumpkin (2007) on human capital and the early success of technology ventures suggests that the ability to learn and adapt is a key determinant of a startup's early success. This is especially true in innovative startups like software, where technological advancements can quickly render existing solutions obsolete (Giardino et al., 2014; Edison et al., 2018).

2.2.1.5. Leadership and Management Skills

Effective leadership and management are critical for steering a startup through its formative stages. A study by Mosey & Wright (2007) discusses the importance of leadership skills in the context of technology transfer and the commercialization of technology-based ventures. Founders who can lead a team, manage resources efficiently, and make strategic decisions are more likely to overcome the hurdles that startups face (Bloom & Van Reenen, 2010; Davidson, 2023; Costa et al., 2023).

2.2.1.6. Diversity of Skills and Perspectives

Diversity within the founding team can enhance creativity and problem-solving. A diverse team with a mix of skills, backgrounds, and perspectives can foster innovation and help the startup to approach challenges from different angles (Cadorin et al., 2021; Gifford et al., 2021; Saura et al., 2019). A study by Klotz et al. (2014) on the impact of diversity on startup performance indicates that diversity can lead to better decision-making and improved outcomes.

2.2.1.7. Cultural Fit

The alignment of team members with the startup's culture and vision is essential for maintaining cohesion and motivation (Zheng et al., 2021). A study by Chandler et al. (2005) on the small firm's survival and technological capabilities emphasizes the importance of a shared vision and commitment to the startup's goals. This cultural fit can be a significant factor in the startup's ability to execute its strategy and achieve its objectives (Roh et al., 2022; Chen, 2020).

2.2.1.8. Risk Tolerance

Founders and early hires must have a high tolerance for risk and the resilience to cope with the uncertainty and potential failures associated with startups. A study by Cardon et al. (2009) on the psychology of entrepreneurship highlights the role of passion and resilience in entrepreneurial success. These traits can help the team to persevere through difficult times and pivot when necessary (Gimmon & Levie, 2010; Passaro et al., 2020; Yang et al., 2019).

In summary, human capital in the form of technical expertise, entrepreneurial skills, networking abilities, adaptability, leadership, diversity, cultural fit, and resilience plays a crucial role in the success of startups, especially during the initial stages. The right combination of these attributes can significantly increase the likelihood of a startup's survival and growth.

2.2.2. Startup's Hiring Practices

2.2.2.1. Strategies to Attract and Retain Talent

The strategies for attracting and retaining talent in startups are multifaceted. High-quality human capital, characterized by skills, knowledge, and experience, is essential for startup success, as noted by Skawińska & Zalewski (2020).

Startups typically leverage personal networks, referrals, and online platforms to find early hires. The founder's network and a team's diverse capabilities play a crucial role in this process (McCarthy et al., 2023; Kimmel et al., 2020). Emphasizing personal growth and involvement in innovative projects to attract talent are also common (Choi et al., 2020). However, there's a notable gap in the literature regarding the use of consultancy agencies in early-stage startups, possibly due to resource limitations.

2.2.2.2. Challenges Startups Face in the Hiring Process

Startups face several challenges in hiring, including limited resources and competition with established firms for top candidates. These firms offer more resources, competitive salaries, and benefits, along with perceived job security and career progression (Bagheri et al., 2023; Kucherov et al., 2022).

Startups also struggle to balance rapid growth, in building what they have envisioned at the start, with maintaining a cohesive culture and providing job security (Choi et al., 2020). They also find it challenging to communicate their culture to potential hires without strong employer branding (Karkhanis et al., 2023).

The COVID-19 pandemic has further complicated this by changing employee expectations around safety and telecommuting (Kucherov et al., 2022). Despite these challenges, startups can leverage

their agility and innovation to attract talent by focusing on career growth and a people-oriented approach (Bagheri et al., 2023; Karkhanis et al., 2023; Choi et al., 2020).

2.2.2.3. Evolution of Hiring Practices as the Startup Grows

As startups grow, their hiring practices often evolve to become more structured and formalized. The initial informal and network-based recruitment methods may give way to more systematic approaches, including the use of professional recruiters, job boards, and social media platforms. The focus may shift from solely hiring for technical skills to also seeking candidates who fit the company's evolving culture and values (Karkhanis et al., 2023; Kemell et al., 2020; Cadorin et al., 2021; Choi et al., 2020).

The literature review suggests that while there is some understanding of startup hiring practices, there are gaps in the research, particularly regarding early hires of innovative startups.

Future research could focus on developing frameworks to better understand the unique challenges and opportunities in startup hiring in their early stages, considering factors such as industry, company growth stage, and the gender of the leadership team. Additionally, there is a need for more applied research to explore non-financial indicators of success and the societal impact of startups (Demartini, 2018).

2.3 Founder's Managerial Background

The interplay between a startup founder's academic and industry background is pivotal in shaping the venture's trajectory.

Educational background's influence on outcomes like survival and profit is debated, but management-focused education may yield higher management rating scores, and industry-relevant education combined with experience can attract investment (Gimmon & Levie, 2010; Bloom & Reenen, 2010; Kartini & Callista, 2021).

Studies indicate that industry-specific experience can bolster startup size and success, while diverse academic backgrounds may enhance crowdfunding outcomes and reduce failure rates (Becker & Hvide, 2022; Gifford et al., 2021; Coakley et al., 2022; Furlan, 2019). Moreover, the founder's industry background, especially in management, is significant for startup development to achieve funding and sustainability (Colombo & Grilli, 2005; Vismara, 2018).

On the other hand, professional networks and technical skills are deemed essential in the early stages, with managerial competencies becoming more crucial as the startup matures (Kemell et al., 2020; Passaro et al., 2020). Although some argue that industry experience is not a determinant of success,

others emphasize its role in survival, growth, and investment attraction (Albourini et al., 2020; Junior et al., 2021; Song et al., 2008; Agarwal et al., 2016; Koroleva et al., 2021; Dencker & Gruber, 2015).

2.3.1 Tenure and Turnover in Innovative Startups

The impact of turnover in innovative startups is nuanced. High turnover can bring innovation through new ideas and skills but may also lead to instability and loss of knowledge. Conversely, low turnover can ensure continuity and build a strong organizational culture, but it might also result in stagnation and a lack of fresh perspectives. The key for innovative startups is finding a balance that allows for the infusion of new talent and ideas while maintaining a stable and experienced workforce to foster innovation and growth (Gupta et al., 2020; Yang et al., 2019; Parthasarathy, 2020; Choi et al., 2020; Ghani et al., 2022; Naz et al., 2022).

2.3.2. Challenges and Opportunities for Innovative Startups Regarding Employee Tenure/Turnover

Innovative startups are operating in an environment characterized by profound uncertainty, swift technological progress, and fluctuating market dynamics. These can be a high determinant of high turnover in these startups (Parthasarathy, 2022; Lakha et al., 2023).

In addition, founders often have a deep psychological investment in their startups during the early growth stages and may not possess the necessary human capital to delegate tasks effectively, which exacerbates these challenges. This can put too much pressure on some team members (Davidson, 2023; Cardon et al., 2009). Davidson (2023) suggests that as the startup grows, founders learn how to better delegate tasks and raise employee engagement. Eventually, this can lead to longer tenure for team members.

Also, a strong relationship between the founder and the employees can promote a sense of belonging and commitment among the employees, which can increase their tenure at the startup (Kemell et al., 2019). Also, The allocation of equity to employees can serve as a form of compensation and motivation, influencing their tenure at the startup. This allocation can vary depending on factors such as the field of activity and the geographic location of the startup (Lebret, 2017).

2.4. Supply Side (Early Hires)

Early hires contribute to the development of the startup's products, services, and business models, shaping the startup's culture, values, and overall direction (Risku, 202, 2021; McCarthy et al., 2023). Furthermore, The diversity of the startup team in terms of skills, knowledge, and experience can enhance creativity and innovation, leading to more innovative solutions and contributing to the startup's success (McCarthy et al., 2023).

2.4.1. What is it like to work for an innovative startup

Working for an innovative startup can be a unique and dynamic experience, characterized by a fast-paced and often unpredictable work environment. The literature on this topic suggests that employees in innovative startups often face a blend of challenges and opportunities that differ from those in more established companies (Kemell et al., 2020; Parthasarathy, 2022; Risku, 2021).

2.4.1.1. Work Environment and Culture

innovative startups, with their ad hoc approach, often operate in a work environment that is marked by less structure compared to their larger counterparts (Giardino et al., 2014; Kemell et al., 2020). The governance model in startups is typically less hierarchical and more flexible, allowing for rapid decision-making and adaptability (Koskinen, H. 2023). This kind of setting is ripe for fostering an open and competitive culture, where a high tolerance for risk-taking is not just encouraged but somewhat expected.

Moreover, there is a palpable acceptance of failure, viewed not as a setback but as a critical component of the learning curve (Koskinen, 2021). However, this can lead to a work culture that is, however exhilarating, also quite demanding. Employees find themselves in a position where adaptability, risk-taking, and proactivity are not just valued but required (Kemell et al., 2020; Choi et al., 2021).

2.4.1.2. Expectations

Employees in innovative startups are often expected to wear multiple hats and take on a variety of roles as needed (McCarthy et al., 2023). This requires a high level of flexibility and a willingness to step outside one's comfort zone. The expectation to quickly adapt to changing market conditions and pivot strategies based on customer feedback is also prevalent (Parthasarathy, 2022). Startups typically have a flat organizational structure, which can lead to expectations of self-management and initiative-taking from employees (Giardino et al., 2014; Kemell et al., 2020).

2.4.1.3. Challenges

One of the primary challenges in working for an innovative startup is the high level of uncertainty and risk. Startups often operate with limited resources and under significant market pressure, which can lead to job insecurity and high stress levels (Kemell et al., 2020). Additionally, the rapid pace of change and the need for continuous innovation can be challenging for employees who prefer a more stable and predictable work environment. The COVID-19 pandemic has introduced additional challenges, such as remote working and shifts in customer demands, which startups have had to navigate (Parthasarathy, 2022).

2.4.1.4. Opportunities for Professional Growth

Despite the challenges, working for an innovative startup can offer significant opportunities for professional growth. Employees often have the chance to take on significant responsibilities early in their careers and contribute directly to the success of the company. The flat organizational structure and close-circle teams can lead to a greater sense of ownership and the opportunity to influence the direction of the company (Kemell et al., 2020).

The dynamic nature of innovative startups means that employees have the chance to significantly impact the startup's trajectory with their performance and can also gain valuable experience in a variety of areas, from product development to customer relations, which can be flourishing for their career advancement (Risku, 2021; Giardino et al., 2014; McCarthy et al., 2023).

3. Theoretical framework

In reviewing the literature, it becomes apparent that there is a significant gap in understanding the specific impact of early hires in innovative startups, meaning the first few individuals who join the startup after its inception by its founders. These individuals, who are crucial during the startup's initial phase, are often underrepresented in academic discussions. This study aims to bridge that gap by identifying key determinants of success, focusing particularly on human capital practices. The findings and managerial applications from this study are expected to benefit all stakeholders in the innovative startup ecosystem, including governments, regulators, incubators, academics, founders, and early team members. By highlighting the importance of human capital in the early stages of innovation, we aim to provide a clearer picture of its role in driving startup success during those critical early months.

3.1. Research Objectives

Our research aims to bridge this gap by providing foundational insights and hypotheses that could spearhead future studies into the nuanced dynamics of innovative startup inception. Ultimately, this may lead to the development of a comprehensive framework for human capital management in early-stage innovative startups.

3.2. Research Focus

Our inquiries first delved into the origins of these early hires, how they are managed by founders, the effect of the founders' managerial background, and the trajectory of their professional careers. This exploration addresses a notable gap in the existing literature regarding the career path determinants of these early hires within the startup ecosystem. We then aimed to uncover the factors that influence their decisions to either remain with or depart from these startups.

In this study, we explored perspectives from both startup founders and early hires. Our findings will involve a comparative analysis of their history, perceptions, and insights. Additionally, we aimed to include the trajectory of more early hires by discussing the first people they hired with the founders. While it was naturally harder for some to remember, we managed to gather information about at least four to five of their initial hires. This allowed us to incorporate the career paths of more early hires into the research.

The study is divided into two main phases. The first phase adopts a descriptive and exploratory approach, focusing on the hiring practices of startups in their initial years and the effect of the founders' managerial background. Subsequently, the second phase focuses on identifying the determinants of tenure and turnover in early-stage innovative startups using the Pull-Push-Mooring framework.

3.2.1. First Phase: Beginning of Collaboration and the Influence of Founders' Managerial Background on Early Hiring and Retention

In the first phase, we documented hiring criteria and the human capital practices of early-stage innovative startups from the moment they realized the need to hire their first few employees to the processes of recruitment, onboarding, evaluation, development, and the tenure/turnover of early hires. Our initial goal was to understand what founders looked for in their first hires, the criteria that played important roles in selecting these individuals, and how they managed to attract, hire, and retain them.

3.2.1.1. Hiring criteria for early hires

The literature suggests for innovative startups, human capital in the form of technical expertise (Colombo & Grilli, 2005; Kemell et al., 2020; Gifford et al., 2021; Marvel & Lumpkin, 2007),

entrepreneurial skills (Unger et al., 2011; Baum & Locke, 2004; Dencker & Gruber, 2015), networking abilities (Stam et al., 2008; Albourini et al., 2020; Cadorin et al., 2021; McCarthy et al., 2023), adaptability and learning (Marvel & Lumpkin, 2007; Giardino et al., 2014; Edison et al., 2018), leadership (Mosey & Wright, 2007; Bloom & Van Reenen, 2010; Davidson, 2023), diversity of skills and perspectives (Klotz et al., 2014; Cadorin et al., 2021; Gifford et al., 2021; Saura et al., 2019), cultural fit and shared vision (Zheng et al., 2021; Chandler et al. 2005; Roh et al., 2022; Chen, 2020), and risk tolerance and resilience (Cardon et al., 2009; Gimmon & Levie, 2010; Passaro et al., 2020; Yang et al., 2019) plays a crucial role in the success. However, we do not know the specific qualities that founders prioritize when hiring their initial team members. In other words, what types of individuals with which competencies are best suited for the early stages of an innovative startup?

3.2.1.2. Early Hiring and Retention Practices (What Happened to Early Hires?)

Young firms typically experience high employee turnover, with new venture teams often being highly dynamic and seeing many exits during the first years (Guenther et al., 2016; Souitaris et al., 2020). This turnover can be an organizational response to the evolving needs of the venture or changes in the firm's environment (Furtado & Karan, 1990; Wiersema & Bantel, 1993).

However, the specifics of what happens to early hires in terms of their job changes within the startup—whether they move horizontally to different functional areas or vertically to higher management levels—are not well understood. In this study, we aim to uncover these details.

Additionally, the destinations of early-stage employees who leave, whether they move to another startup or to an incumbent firm in similar or different positions, are unclear. This study seeks to explore these patterns and determine if there is a market for startup employees.

The reasons why early hires leave, such as poor fit, better offers elsewhere, insufficient performance, or personal conflicts, are also not comprehensively documented.

Furthermore, it is unknown whether departing employees are replaced by someone in the same job role, indicating the startup's need for that specific job, or if the job description changes with the new hire, reflecting the startup's learning and adaptation needs. This study will investigate these aspects to provide a clearer understanding.

3.2.1.3. Evolution of Hiring and Retention Practices

As startups grow, their hiring practices often evolve to become more structured and formalized. The initial informal and network-based recruitment methods may give way to more systematic approaches, including the use of professional recruiters, job boards, and social media platforms. The focus may shift from solely hiring for technical skills to also seeking candidates who fit the company's evolving

culture and values (Karkhanis et al., 2023; Kemell et al., 2020; Cadarin et al., 2021; Choi et al., 2020).

However, the literature does not provide specific details on when and how exactly these changes start to happen. There is some understanding of startup hiring practices, but significant gaps remain, particularly regarding early hires of innovative startups. This study aims to fill these gaps by examining the timing and nature of the evolution in hiring and retention practices.

3.2.1.4. The Effect of Founders' Managerial Background

This segment emphasizes the role of founders in initiating the hiring process. We aimed to identify the impacts of the founders' managerial backgrounds on their hiring and retention decisions during the startup's formative years. To do this, we assessed the influence of the founders' managerial backgrounds based on descriptions provided by both founders and early hires.

The literature highlights the significance of a founder's background in the success of startups, particularly regarding human capital practices. Studies suggest that the founder's managerial experience, both academic and industry-based, can attract investment (Gimmon & Levie, 2010; Bloom & Reenen, 2010; Kartini & Callista, 2021). Additionally, industry-specific experience can bolster startup size and success (Becker & Hvide, 2022; Gifford et al., 2021; Coakley et al., 2022; Furlan, 2019) and contribute to achieving funding and sustainability (Colombo & Grilli, 2005; Vismara, 2018). However, there is limited research on the effect of a founder's managerial background on managing early hires in innovative startups.

Kemell et al. (2020) and Passaro et al. (2020) emphasize that professional networks and technical skills are essential in the early stages, with managerial competencies becoming more crucial as the startup matures. But what about the initial phase? This study aims to explore whether the managerial background of founders affects the tenure and turnover of early hires and what those effects might be.

It is important to mention that during the initial stages of this study, alongside the literature review, we conducted three trial interviews with one young founder and two early hires from innovative startups in the software industry. These interviews were enormously helpful in better understanding the topic, selecting more suitable samples for our study, and finalizing the interview questions.

3.2.2. Second Phase: Understanding Early Hire Dynamics in Innovative Startups (Tenure and Turnover Factors)

In the subsequent phase of this research, we conducted careful thematic coding of our conversations to identify the factors that influence early hires' decisions when they face career choices during their tenure at the startup. By integrating the perspectives of initial employees with those of the founders, we aimed to foster a more comprehensive and realistic understanding. This methodology is instrumental in mitigating the risk of developing a unidimensional viewpoint, which is common in literature that focuses solely on founders, and on matters that inherently require a bidirectional analysis.

3.2.2.1. Overall conditions of early-stage innovative startups for their employees

Innovative startups typically operate in a work environment that is less structured compared to larger firms, characterized by a flexible and less hierarchical governance model that facilitates rapid decision-making and adaptability (Giardino et al., 2014; Kemell et al., 2020; Koskinen, H. 2023). This environment fosters an open and competitive culture where risk-taking is encouraged, and failure is viewed as a critical component of the learning process (Koskinen, 2021). However, this can create a demanding work culture where adaptability, risk-taking, and proactivity are not just valued but required (Kemell et al., 2020; Choi et al., 2021).

Employees in innovative startups are often expected to take on multiple roles, demonstrating a high level of flexibility and a willingness to step outside their comfort zones (McCarthy et al., 2023). This flat organizational structure typically necessitates self-management and initiative-taking, with employees needing to quickly adapt to changing market conditions and pivot strategies based on customer feedback (Parthasarathy, 2022; Giardino et al., 2014; Kemell et al., 2020).

One of the primary challenges in working for an innovative startup is the high level of uncertainty and risk. Limited resources and significant market pressures can lead to job insecurity and high-stress levels (Kemell et al., 2020). The rapid pace of change and continuous innovation required in such environments can be particularly challenging for those who prefer stability and predictability. Additional challenges, such as remote working and shifts in customer demands brought about by the COVID-19 pandemic, further complicate the work environment in startups (Parthasarathy, 2022).

Despite these challenges, working in an innovative startup offers significant opportunities for professional growth. Employees often take on substantial responsibilities early in their careers, directly contributing to the company's success. The flat organizational structure and close-knit teams foster a greater sense of ownership and the opportunity to influence the company's direction (Kemell et al., 2020). The dynamic nature of startups allows employees to significantly impact the startup's trajectory and gain valuable experience in various areas, from product development to customer

relations, which can be beneficial for their career advancement (Risku, 2021; Giardino et al., 2014; McCarthy et al., 2023).

While we understand these aspects of working conditions in early-stage innovative startups, it remains unclear which specific factors are detrimental to the career trajectories of early hires. Our objective was to understand what has historically influenced early hires' decisions to join, stay with, or leave the startup. We aimed to see what factors contribute to their decision to stay and possibly advance within the startup or transition out, whether to join another startup or a larger, more established corporation.

We classified these influencing factors by applying the Pull-Push-Mooring framework, a model traditionally used in migration studies, to the context of career movements of early hires within the startup environment for the first time.

3.2.2.2. Pull-Push-Mooring Framework (PPM)

The Pull-Push-Mooring (PPM) Framework, originally conceived by Moon (1995) to elucidate migration behaviors, has been extended to diverse domains such as marketing and employee turnover. Applying this framework to employee tenure and turnover helps explain the reasoning behind decisions to stay with or leave the current organization (Haldorai et al., 2020). In this context, the decision to move from an early-stage startup to another startup or a larger, more established company is influenced by an interplay of pull factors, push factors and mooring factors. Pull factors are appealing alternatives that draw employees away, push factors are unfavorable aspects of the job that propel employees to leave, and mooring factors are individual circumstances or hindrances that complicate the process of changing jobs.

3.3. Summarising the framework

To summarize the framework figure 1 visually depicts the overall potential of the links.

Demand Side (Founders of Early-Stage Innovative Startups)

- **Startup Hiring and Retention Practices:** These practices may influence the tenure/turnover of early hires and the criteria set by founders for early hires influence the kinds of people joining at the early stage.
- **Trajectory of early hires:** We need to see what happened to the first few employees.
- **Evolution of Hiring Practices:** At certain points in the startup life cycle, hiring and retention practices evolve in response to the changing needs and growth of the startup.

- **Founders' Managerial Background:** The managerial background of founders forms the basis of the hiring and retention practices of the startup and in turn may influence the tenure and turnover of early hires.

Supply Side (Early Hires of Innovative Startups)

- **Employment Preferences:** The employment preferences of early hires influence their tenure and turnover within the startup.
- **Working Conditions:** Many multifaceted factors are involved in working conditions in early-stage innovative startups.
- Different categories of working conditions may influence early hires differently from individual to individual.
- **PPM Framework Application:** Tring to explain the determinants of early hires' tenure and turnover through the lens of the PPM framework (Push-Pull, Pull-Push, Mooring).

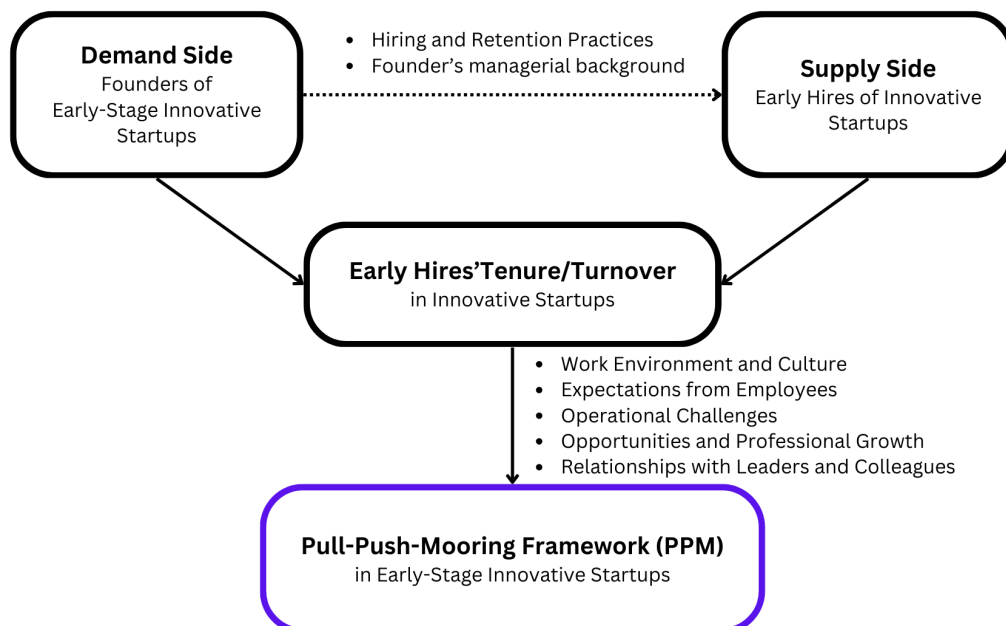


Figure 1: Synthesis of the Links in the Framework

4. Methodology

4.1. Research Design

While much scholarly attention has focused on the founding of startups and the formation of co-founder teams, less is known about the hiring, retention, and turnover of the first employees in startups. Founding teams are typically defined as “two or more individuals who pursue a new business idea, are involved in its management, and share ownership” (Lazar et al., 2020). However, the dynamics of the first handful of employees, or “early hires,” and how their retention and turnover relate to the founders’ managerial background are not well understood. Most existing literature emphasizes the founder’s background in the overall success of the startup.

Therefore, the first phase of this research aims to document the journey of early hires and investigate whether a founder's academic background in management or industry experience as a manager affects whether these early hires stay with or leave the innovative startup.

In the second phase, to understand the preferences of early hires and their tenure/turnover, existing studies on early-stage innovative startups provided valuable insights into various working conditions, such as work environment and culture, expectations, challenges, and opportunities for professional growth. These insights helped shape our interview questions and are likely among the factors that influence early hires' preferences and, consequently, their tenure and turnover.

To achieve these goals, this research employs an exploratory approach, following Swedberg's (2020) recommendations, to investigate the lesser-known dynamics of early hires in startups. This approach is essential for uncovering new insights and developing hypotheses in areas where research is limited. Swedberg (2020) emphasizes that exploratory research is particularly common in social sciences because it helps achieve a deeper understanding of specific phenomena or behaviors. Methods such as interviews, case studies, and observations are typically used.

Our study focuses on exploring the perspectives, experiences, decision-making dynamics, and insights of those involved in the early stages of innovative startups. Therefore, a qualitative methodology was chosen as the most suitable and effective approach for this research. This methodology allows us to delve into the nuances of the subject matter and identify emerging patterns, themes, and trends.

We collected qualitative data through semi-structured interviews, supplemented by follow-up questions, targeting both startup founders (Demand Side) and their early employees (Supply Side). The interview questions were shaped by a review of past literature and three initial interviews. They guided the general themes and topics addressed in the interviews. To align with the exploratory nature of the study, the interview questions were largely open-ended, particularly in sections reflecting the preferences of early hires. This design allowed interviewees the flexibility to direct the conversation, interpret prompts based on their experiences, and respond authentically.

These interviews were instrumental in providing deep insights into participants' attitudes, behaviors, and experiences. This approach was crucial for gathering detailed information about the current state of tenure and turnover among early hires in innovative startups. Additionally, employing thematic analysis enabled us to extract and understand the early hires' preferences by utilizing the PPM framework.

4.2. Data Collection

4.2.1. Demand Side

For the demand side, we targeted recent successful startups, defined as those that have surpassed the early stages and are either already scaling or on the verge of scaling up. We also included acquired startups with significant funding in our sample. Our focus was on startups founded no more than five to six years ago to ensure that the founders' recollections of their early days were still clear and accurate.

The startups selected for our study exemplify the diverse and innovative nature of contemporary high-growth enterprises. These startups span various industries, including esports and virtual reality, workforce scheduling, and digital news aggregation, yet share common characteristics of rapid innovation and technological advancement. Each startup began with a small, agile team, typically ranging from three to ten employees, and has successfully scaled to include significantly larger teams. For instance, companies like Beply and Jogo have expanded their teams substantially, reflecting their successful market validation and growth. Despite the industry differences, these startups demonstrate a shared emphasis on leveraging cutting-edge technology to create innovative solutions, maintaining flexible and adaptive organizational structures, and focusing on sustainability and digital transformation. This commonality underscores their role as exemplars of innovative startups in the modern economy.

We were fortunate to connect with the chairman of one of the largest telecommunication and high-tech venture capital firms in Iran, Harekat-e-Avval. Dr. Majid Mokhtarnia has been involved with numerous startups and has served as a founder or co-founder in five different startups in recent years. These ventures primarily focused on app development, including service-based businesses, news, and entertainment apps. His insights proved invaluable to our research findings.

In addition to gathering data on employees from the startups' inception years, we specifically asked questions about the first five to ten individuals they hired. This approach allowed us to gain detailed insights into the processes of attracting, hiring, retaining, and the tenure of these initial hires during the early days of the startup. The overview of our founders and their startups is shown in Table 1.

Name	ID	Startup Name	Description	Industry	Start Date	Early Team Size	Current Status	Current Team Size	Interview Duration
Janrasina Laurel	D1	Star8 Green Technology Corp. (Philippines)	Focuses on green technology solutions, including solar energy products.	Green Tech	2020	4	Actively involved in rolling out eco-friendly transportation solutions, including partnerships with the Philippine government.	8	77 Min
Peter Kortenhoven	D2	RWXR	Specializes in eSports and VR, offering immersive experiences and solutions.	eSports & VR	2018	3	After a two years of Covid, is now exploring new partnerships in VR gaming.	6	66 Min
Karel Rabaut	D3	Beeple.eu	Solutions and app for scheduling temporary workforce, serving industries like staffing, healthcare, retail, and more.	HR Tech/Staffing	2020	4	Expanding through Belgium and Europe, including France and Spain. Currently serving 1,300 clients in 22 countries. Acquired by Visma to enhance growth and reach new markets.	100	60 Min
David Dwinger	D4	Jogo (433)	Initially a mobile app with a PowerPoint, transitioned to a major player in AI-driven football analytics	Sports Technology (Sensors, Apps, Algorithms,...)	2020	6	Acquired by 433, integrating AI to enhance soccer performance analytics and expanding its user base including many major football clubs.	25	57 Min
Majid Mokhtarnia	D5	Collective of Five Startups	Mostly in mobile apps including Service based, News, and entertainment apps	Telecommunication	-	-	-	-	58 Min

Table 1: Overview of Founders

4.2.2. Supply Side

For our supply side, we aimed to find individuals who were hired during the initial stages of the startup life cycle and were among the first five to ten employees after the founding team formation phase. In other words, these are the first individuals who were paid a salary or compensation for their participation in the startup. We sought to reach people who were hired by the same startups in our demand side sample. Unfortunately, with the exception of the Jogo startup, we were unable to connect with early hires from our specific startup sample. However, we successfully secured 2 other early hires from similar startups where our demand side participants were active.

The startups of our supply side include Jogo, Monta, and Friday News, each representing different sectors of the technology and digital landscape. Jogo, initially a mobile app for sports engagement, quickly grew into a significant player before being acquired by 433. Monta, an all-in-one EV charging app, stands out in the green technology sector, providing comprehensive solutions for the electric

vehicle ecosystem. Friday News, later acquired by Upday, was a digital news aggregation platform that streamlined and personalized news delivery. Despite operating in distinct industries—sports technology, green tech, and digital media—these startups share a commitment to innovation and rapid growth, offering a rich context for examining the experiences of their early hires when they joined the startup in its early stages. The overview of our early hires is depicted in Table 2.

Early Hires	ID	Education	Prior Experience	Startup Name	Description	Industry	Founding year	Joining in	Team Size on Joining	Joining Position	Current Position	Current Startup Status	Current Team Size	Interview Duration
Mojtaba Mirkhorlo	S1	PhD in Mechanical Engineering, VU (Vrije Universiteit Amsterdam)	2 years postdoc position at Delft University	Jogo (433)	Initially a mobile app with a PowerPoint, transitioned to a major player in AI-driven football analytics	Sports Technology (Sensors, Apps, Algorithms,...)	2020	In the 6th month	5	Algorithm Engineer	Data Engineer	Acquired by 433, integrating AI to enhance soccer performance analytics.	25	104 Min
Tohid Heshmati	S2	Bachelors in Software Engineering, Free University of Berlin	2 year for a car insurance company as a backend engineer	Monta	Monta is an innovative platform providing a comprehensive EV charging ecosystem, offering software solutions for drivers, businesses, and industry partners.	EV Charging innovative solutions	2020	In th 11th Month	12	Backend Engineer	Left the startup after 5 months	Monta has raised €80 million for expansion, currently operating in new markets such as France and Spain	200	91 Min
Emad Rezaie	S3	MSc in Computer Science, Networking, University of Helsinki	1-year internship and student work at tech firms in backend Development	Friday News (Upday News)	Digital news aggregation and innovative news delivery platform	News and Media	2019	In the 12th Month	6	Backend Engineer	Technical Lead in the backend Development	Successful acquisition from Upday	100	73 Min

Table 2: Overview of Early Hires

The research was designed to extract broad and profound insights from each participant. To achieve this, we opted for a semi-structured interview format. Respondents were encouraged to express their ideas and viewpoints yet within the framework of the researcher's inquiries. The interviews commenced with introductory questions to understand the respondents' roles and identities, which are crucial for interpreting their perspectives.

After the initial warm-up and general questions, the researcher delved into more detailed and specific inquiries to unearth deeper insights. The questions were organized into segments corresponding to the study's research questions. For each research question, the researcher prepared a set of detailed sub-questions to probe the respondents further.

Prior to the interviews, respondents were provided with the questions in advance, allowing them to review and prepare any queries they might have for the researcher.

The interview process kicked off with introductory questions to get a sense of the respondents' profiles and their roles within the startups. We identified potential candidates through LinkedIn and additional contacts within the researcher's network and used snowball sampling. These individuals were contacted via email, providing a concise introduction to the study and an overview of the interview questions to properly prepare for the interview.

Interviews were initially planned for approximately 60 minutes but typically extended to around 75 minutes on average. Conversations with founders were generally 10 to 15 minutes shorter than those with early hires due to their busy schedules, necessitating a more concise discussion. This approach ensured we gathered comprehensive insights while respecting the participants' time constraints.

The data collection process has been facilitated by the rapid advancement of digital communication technologies. With the convenience of online platforms, several interviews were conducted using Google Meet and Microsoft Teams. This approach was particularly useful as some respondents were located in Hasselt, while others were based in cities like Berlin and Amsterdam or other countries like Iran. Online meetings were deemed necessary to maintain the continuity of the interviews.

It is acknowledged that face-to-face interviews are advantageous for fostering an open environment and for the interviewer to observe nonverbal cues (Ritchie, 2013). However, we found that online interviews can yield results that are equally credible and valid as those obtained from in-person interactions. In addition to the interview data, we also considered existing academic literature during the data collection phase.

4.3. Data Analysis

Audio recordings from the interviews were meticulously transcribed to facilitate the subsequent processing, organization, and interpretation of the data (Sutton et al., 2015). A fundamental aspect of qualitative interviews is to prioritize the respondent's perspective and to understand their viewpoint. During data analysis, it was imperative to remain faithful to the respondents' narratives without imposing the researcher's subjective interpretations. The goal was to capture their voices authentically, allowing their experiences and insights to be understood and shared for the benefit of others seeking knowledge (Sutton et al., 2015).

Thematic coding, or thematic analysis, was employed as a method to dissect the text by identifying specific words and phrases. Coding is essentially the act of marking one or more segments of text or data objects that encapsulate a similar theoretical or descriptive notion (Gibbs, 2007). This step was crucial in constructing a thematic framework that provided a structured understanding of the data being examined.

By coding the data, the researcher was able to categorize and index the content, linking various text passages to a term that encapsulated the underlying concept. This facilitated the identification of patterns and the formulation of pertinent conclusions. In essence, coding involves systematic scrutiny of the data to discern and classify themes, patterns, and connections. It required the researcher to meticulously comb through the data, pinpointing sections that exemplified a particular idea or concept. We identified these sections and labeled them as themes, categories and sub-categories, serving as a reference for all text or data related to that same idea or concept.

4.1.1. Thematic Analysis and Coding

The process of identifying common themes, categories, and subcategories was ongoing and continuous throughout the entire research. This process began with the literature review and continued through each interview, culminating in a comprehensive thematic analysis of the interviews and the codes. For instance, when examining the hiring criteria of early hires, we initially started with eight major criteria derived from the literature. However, as we conducted more interviews, this list expanded to 14 criteria. After the initial analysis, we realized that these criteria could be categorized into hard skills and soft skills. Additionally, we recognized the need to differentiate between those who work onsite and those who work remotely or as freelancers. Ultimately, we established four subcategories: hard skills, soft skills, jack-of-all-trades, and onsite versus remote and freelance.

The process of identifying common themes, categories, and subcategories was ongoing and continuous throughout the entire research. This process began with the literature review and continued through each interview, culminating in a comprehensive thematic analysis of the interviews and the codes. For instance, when examining the hiring criteria of early hires, we initially started with eight major criteria derived from the literature, such as technical expertise, product development, networking, adaptability, cultural fit, and risk tolerance. However, as we conducted more interviews, this list expanded to 14 criteria, including shared vision (which we later defined as onboardness due to a quote from a founder), self-changeability, and a criterion we defined as people/human skills.

After the initial analysis, we realized that these criteria could be categorized into hard skills, soft skills, and Jack of all trades as subcategories for the Hiring criteria of early hires in early-stage innovative startups. These codes and subcategories are depicted in Figure 2 for an overview of the coding tree.

Themes	
•	Categories
○	Sub-Categories
○	<i>Codes</i>

1. General Information

- **Startup Information**
 - *Startup Inception Story*
 - *Founders Background*
 - *Initial Starting Size*
 - *Current Status and Size*
- **Employee Information**
 - *Employee Background*
 - *Employee Position*
 - *Remote and Freelance*
 - *Part-time*
 - *Internal*
 - *Current Positions*

2. Beginning of Collaborations

- **Description of Early Hires**
 - *Joined in The First Year*
 - *After the First Round of Funding*
 - *Before Big Funding and/or Pre-Acquisition*
 - *Founder-Led Hiring and Onboarding*
- **Hiring Criteria**
 - **Hard Skills**
 - *Technical Expertise*
 - *Product Development*
 - *Industry Experience*
 - **Soft Skills**
 - *Cultural Fit*
 - *Risk Tolerance and Resilience*
 - *Networking and Relationships*
 - *Entrepreneurial Skills and Experience*
 - *Adaptability and Learning*
 - *Shared Vision (Onboardness)*
 - *People/Human Skills*
 - *Self-Changeability*
 - **Jack of All Trades**

- **Early Hiring**
 - *Initial Needs to Hire*
 - *Role Creation*
 - *Job Description*
 - *Initial Attraction*
 - *Hiring Methods*
 - *Technical/Psychological Tests*
- **Tenure/Turnover of Early Hires (Evolution)**
 - *Horizontal Moves*
 - *Vertical Moves*
 - *Quitting/Leaving the Startup*
 - *Being Fired*
- **Evolution of HR Practices**
 - **Informal vs. Formal**
- **Founders' Managerial Background**

3. Early Hire Dynamics in Innovative Startups

- **Working Conditions of Early-Stage Innovative Startups**
 - **Pull-Push-Mooring Framework**
 - *Ad-Hoc Work Environment and Culture*
 - *Expectations*
 - *Challenges (Uncertainty and Risks)*
 - *Opportunities for Professional Growth*
 - *Flexible Working Conditions*
 - *Relationship with Leaders and Colleagues*
 - *Perception of the Startup's Future Success*

Figure 2: Overview of the Coding Tree

4.5. Reliability, validity, and ethical considerations

To safeguard the integrity of the research, the interview transcripts were meticulously cross-checked with the audio recordings to rectify any discrepancies. Occasionally, transcripts were fragmented sentences in ways that distorted the intended meaning or placed undue emphasis on certain words due to the extension's interpretation of sentence structure.

These meticulous checks not only enhanced the transcripts' accuracy but also bolstered the credibility of the research findings. Conscious of potential biases, measures were taken to mitigate their impact. The interview questions underwent a vetting process to eliminate any leading questions that could sway the responses. However order effects bias—where the sequence of questions might shape the interviewee's responses—was challenging to completely eliminate due to the need for a logical progression of topics and a structured yet flexible interview format within the time constraints.

To further validate the answers, counterfactual questions were asked. For example, to determine the factors predicting early hires' tenure and turnover from the startups, if at one point in the interview with an early hire, we were discussing the significance of the corporate culture and work environment, or in another section about stock options, we would later pose hypothetical scenarios. For instance, we might ask, "Would you accept a job with 25% more salary but no stock options in another place with a culture that you do not approve of to some extent?" and follow up later with, "How about 25% less in a company that aligns with your cultural preferences?"

In this way, we first gain a more realistic understanding of the importance of corporate culture, stock options, and salary for each individual. Secondly, the follow-up discussion on the "to some extent" part reveals how much deviation from their preferred culture or the absence of stock options they can tolerate if compensated with a higher salary.

Ethical considerations were also paramount throughout the interview process. In addition to the initial information sent to participants via email about the nature of the study and the interview questions, each interview began with an overview of the interview and the study. The following statement was read to them to provide the necessary psychological safety and obtain their consent for the interview and its recording.

5. Results

5.1. Beginning of Collaborations

5.1.1. Description of Early Hires

In the literature and theoretical framework sections, it became evident that there is no clear categorization for early hires in startups, apart from general terms like "early joiners" or "early-stage employees." To address this, we delved deeper into the descriptions provided by our participants and were able to categorize the definition of early hires into four main groups. Table 3 presents the participants' perceptions of early hire's definitions. Regarding the initial team size of early hires in our studied startups, which have an average inception year of 2019, they typically consist of around four employees identified as their early hires.

The first category encompasses individuals hired roughly within the first year of the startup's inception. Followed by the second category which comprises the first employees hired right after the first round of funding. The third category includes employees brought on board before securing significant funding rounds, such as initial big funding, Series A funding, or being acquired by a larger company. Finally, the fourth category includes employees who were directly engaged by the founder, from the initial communication and interviews to the onboarding process. We will discuss each of these categories further below, incorporating the participants' descriptions and insights.

Participant ID	Startup	Joined in the First Year	After the First Round of Funding	Before Big Funding and/or Pre-Acquisition Hires	Founder-Led Hiring and Onboarding (A to Z Hiring)
D1	Star8 Green Technology	✓		✓	
D2	RWXR	✓			✓
D3	Beeple.eu		✓		✓
D4	Jogo (433)	✓	✓		✓
D5	Collective of Five Startups	✓	✓		
S1	Jogo (433)			✓	✓
S2	Monta	✓			
S3	Friday News (Upday News)				✓

Table 3: Participants' Perception of Early Hires

5.1.1.1. Joined in the First Year

The characteristics of this category closely matched our initial description of our sample size, encompassing individuals who were among the first handful of people hired in the early stages and months of the startups' inception. The majority of our founders, four out of five, identified early hires in terms of time intervals of roughly a year. It is important to note that almost all of them emphasized that this is merely an estimation, not limited to employees hired within exactly 12 months.

"All three of them were from the first year after we announced [...] I said first year but you know it's a guess for me now after five long years. But I remember we secured the last one who was our project coordinator after our anniversary. I say in the month following. So so so 13 months." - D2, RWXR

These employees are typically the first to join the startup as soon as the startup can afford their salaries after its inception by the founding team, where there is an overwhelming amount of work to be done and a significant shortage of manpower, consistent with the literature by Bagheri et al. (2023) and Kuchеров et al. (2022), to begin realizing and building the founders' visions, as noted by Choi et al. (2020).

"We were drowning with tasks. Even my mom's assistance wasn't enough for me to pay my load. You know? Not a typical 9 to 5 job. So, in the first year, I was fighting and fighting for these employees. We gathered a functional team that can perform the tasks and complete the projects within the time. All four of them, I had to fight for them to convince the others." - D1, Star 8 Green Technology (Philippines)

"The start I say it's the most demanding, and I separate the people that I hire for my startups in that period, especially the first year. First year is the most demanding and there is where is determined that we succeed or not, in my opinion, of course." - D5

Their roles are described as crucial in shaping the initial direction and culture of the startup to execute its strategy and reach its goals, confirming past literature by Roh et al. (2022) and Chen (2020), indicating they may play a more significant role than just that of an employee.

"We got all five in the first six months give or take a month. Mojtaba being the last all of them [...] they were really really important for us [...] just like us they too made our culture like our values go forward and make the best out of everything and evolve quickly." - D4, Jogo

From our early hires, the insights of S2 align with this category, highlighting Monta's rapid growth after his arrival. Notably, this significant player in EV charging innovative solutions has expanded to over 200 employees within three years of its inception.

"I was recruited in the 11th or 12th month. So I say first year yes. Right around when I joined and after a while, I heard that that time was their pick loads. Lots and lots of work.[...] They were a team of 12 when I joined, yes 12. I think, however, if I'm not wrong, in the following month or two we hired like 20 people." - S2, Monta

5.1.1.2. After the First Round of Funding

This category represents the employees who were hired after the first significant funding, which enabled the startups to afford the salaries of their first hires. It is not necessarily Series A and more resembles seed rounds that include any substantial financial support that allows the startups to expand their teams.

For instance, Beeply.eu (D3), although they eventually secured Series A funding of 2 million euros, began hiring as soon as they obtained their initial funding through friends, colleagues, and their network. Another fact about this startup is that they regularly have been using interns and part-time students as their early employees, with two out of their four early hires fitting this description.

They often brought specialized skills and expertise that were essential for the startup's growth and success, as outlined by Kemell et al. (2020), Gifford et al. (2021), and Marvel & Lumpkin (2007), and were expensive for the startup before its initial funding.

"Right after my CTO and I went through all of our networks and raised the funding that we needed to get that first even part-time product developer or app developer to work faster. It was a breakthrough." - D3, Beeply.eu

"In total, we had three rounds of funding [...] We knew who we wanted to hire. That's why, after the first funding, we hired developers from Pakistan. Because initially, we had an idea, or the app, plus a PowerPoint. We needed to get data and analysis." - D4, Jogo

5.1.1.3. Before Big Funding and/or Pre-Acquisition

The second category includes pre-funding or pre-acquisition hires. This category comprises employees who joined the startup before it secured major rounds of funding or before being acquired by a larger company

This stage of the startup lifecycle often results in a large injection of funding and in the case of acquisition also a new decision-making process due to new ownership. These fundings could include Series A funding or any substantial hedge fund investments. Such significant financial backing often leads to changes in operations and increased freedom to scale and innovate. The employees hired

before these substantial funds were more closely aligned with the description of early hires, playing pivotal roles in shaping the startup's initial direction and culture.

Surprisingly, only two of the participants mentioned this as a criterion for identifying early hires. The assumption of the researcher, based on the literature (Karkhanis et al., 2023; Kemell et al., 2020; Cadorin et al., 2021; Choi et al., 2020), was that after securing these kinds of funding, the hiring practices and needs of the startups may change, along with the shared characteristics of their hires. One of these participants was a young entrepreneur, D1, who had just completed her bachelor's degree and was leading an innovative green tech spin-off startup with two other co-founders.

She emphasized the changes that occurred after the large investment from the parent company and noted that the roles of the employees joining after the funding changed significantly. This included many other aspects, such as administrative work and HR.

"After the parent company decided that we are building something of significance, the parent company decided to invest in us, and started with the investments. I get rid of every recruitment and HR to the consultancy firm that now I was able to use, at least for the first half of everything, until the employee was in the building [...] Also now there was no need for all of our employees to wear multiple hats all the time." - D1, Star8 Green Technology

The second was S2, the early hire of Jogo, who communicated that everything changed after the acquisition and with it, the increase in the population of early hires stopped.

"After the acquisition, everything changed. It was like we were in a different company in some ways [...] And I can say definitely that the people that we hired after that, to some extent, turned out to be different [...] For example, after that, gradually other people started to recruit for their own projects and David would join later into the recruitment process." - S1, Jogo

5.1.1.4. Founder-Led Hiring and Onboarding (A to Z Hiring)

The fourth category is founder-led hiring and onboarding, which we refer to as A to Z hiring performed by the founder. In the early days, founders often handle the entire hiring and onboarding process themselves. These hires are usually handpicked by the founders, who take a direct and personal approach to selecting and integrating these employees into the startup.

From the insights of the participants, it appears that the value in the alignment of employees decreases significantly when founders are not involved in the hiring process from the initial stages through to onboarding and feedback on alignment. This presents a trade-off for founders. On one hand, they free up their schedules to address critical gaps within the startup, but on the other hand, it

seems that the characteristics of the employees start to change and their adoption of the cultural fit tends to diminish.

Most of our participants, specifically five out of eight, described early hires as employees with whom the founders were involved from start to finish. This involvement includes the initial hiring process, onboarding, and ongoing alignment with the company's vision and culture.

"[...] For example, after that, gradually other people started to recruit for their own projects and David would join later into the recruitment process. This could well be a good description of early hires. Being recruited by the founders himself from the first message to job explanation and socialization of the employee into the startup." - S1, Jogo

"We usually have to have two meetings before you start to work for us in those days [...] we were in close communication all the time, all of us with each other [...] This went on for 3 to 6 months with the new people" - D4, Jogo

D5, who has extensive experience in innovative startups, primarily in the telecommunication and app development sectors, emphasized the high level of involvement he seeks with his earliest employees for each of his startups. He believes these individuals will eventually run the startup. This approach might be influenced by his extremely busy schedule with other obligations and venture capital responsibilities, necessitating that he delegate the startup to the early hires as soon as possible. Consequently, he involves himself extensively with them during the initial months. This strategy ensures the quickest alignment, as indicated by his insights.

"I personally interviewed and onboarded every single one of our initial team members and worked with them extensively almost every hour of the day in their first days and months. I would not miss a minute of interaction with a potential employee." - D5

"Covid was the worst. Of course, for all of the things that you might think of, but in my opinion, it was the worst because it put distance between us, the team. We were working together shoulder to shoulder, tackling obstacles with our collective strengths." - D2, RWXR

"Although I didn't have much experience before that, but I had the experience of working for tech firms, it was the first time that I had to interact with the founder for every minor detail. And by had, I mean, it's a good thing. Projects were going more smoother when they had all our attention, and we had all this." - S3, Friday News

5.2.1. Hiring Criteria

Knowing the significant importance of early hires for early-stage innovative startups, it is essential to understand what was in the minds of the founders when they first realized they needed to hire their initial employees. One notable characteristic of our sample is that these startups have achieved a desirable current status and can be categorized as successful ventures that have scaled up. By looking back at the insights provided by the founders, we can discern which aspects of employment were prioritized and deemed most important during the early hiring phases of these startups. This analysis offers valuable perspectives on the employment criteria that contributed to the successful trajectory of these innovative startups.

During the middle of the research, as we conducted more interviews, we gradually shifted towards categorizing the criteria into hard skills and soft skills. This approach allowed us to better organize and understand the founders' priorities when hiring early employees. All the skill categories, along with their representative skills, are depicted in Table 4, highlighting the importance each founder placed on these criteria during our conversations. Additionally, one of the frequently mentioned codes was "jack-of-all-trades," which, by its nature, combines both soft and hard skills. Therefore, we ended up with three main categories of skills demanded by the founders in the early days of their startups: hard skills, soft skills, and jack-of-all-trades.

		Hard Skills			Soft Skills								Jack of All Trades
Innovative Startup	Participant's ID	Technical Expertise	Product Development	Industry Experience	Cultural Fit	Risk Tolerance and Resilience	Networking and Relationships	Entrepreneurial Skills	Adaptability and Learning	Shared Vision (Onboardness)	People/Human Skills	Self-Changeability	
Star8 Green Technology Corp. (Philippines)	D1	✓	✓	✓			✓	✓	✓				✓
RWXR	D2	✓			✓	✓	✓		✓	✓	✓		✓
Beeple.eu	D3					✓	✓	✓	✓	✓	✓	✓	✓
Jogo	D4	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
Five Collective Startups	D5	✓	✓			✓	✓		✓		✓		✓

Table 4: Founders' Hiring Criteria for Early Hires

5.2.1.1. Hard Skills

As gathered from the insights of both the founders and early hires, technical skills, and abilities like product development are crucial in the first stages of a startup. These skills are desperately needed as startups are often bound by multiple projects and limited resources. Founders regularly pointed out that all initial team members had to contribute beyond their core expertise. However, the general indication of the need for technical skills and even industry-relevant experience was not as emphasized as Colombo and Grilli (2005) depicted. Instead of viewing technical expertise as a cornerstone in developing a valuable and competitive product in high-tech startups, founders considered it more as a minimum requirement of hard skills.

Whether it was backend development for a potentially large app like Monta or developing a cutting-edge application for professional football and sports training, the emphasis was on practical, foundational-level skills. Jogo, which later became part of 433, is a prime example. Jogo started as an application for football training, using sensors, algorithms, and machine learning, and is now beginning to incorporate AI into its functions. The founder of Jogo indicated that he sought individuals who could grasp their vision and deliver basic outcomes, regardless of the specific technical expertise. They did not conduct formal assessments for technical skills; instead, they focused on discussions about the candidate's approach to goals during three preliminary meetings before starting the collaboration. This approach highlights the flexible and adaptive nature of hiring practices in early-stage startups, where it seems practical problem-solving abilities and some minimum hard skills are often valued over top-level and formal qualifications.

"When we hired Mojtaba for example, never I thought that I would employ a PhD of mechanical engineering with no experience in sports for algorithm development at the start [...] But what do you know, it worked perfectly [...] he was the right one not the most unique expert one." - D4, Jogo

As for the industry experience, we observed instances where founders, to our surprise, mentioned that while technical jobs remain very challenging, they were not necessarily looking for big players in the market although sometimes they desperately desired to have one. Instead, they preferred to make more economical choices by hiring individuals who, although not exceptionally experienced, could integrate well within a close-knit team. This approach allowed them to maximize the potential of these hires through team synergy and collaborative effort. An example could be Bleeply, where D3 from Bleepe.eu emphasized that he managed to start his venture by employing interns and part-time employees.

"We had students who started working for us and now are among our best lead positions and regional managers [...] together we managed to pass every obstacle." - D3, Bleepe.eu

Naturally, these early hires often lacked significant industry experience and technical expertise beyond their educational background and academic projects. This approach underscores the practical necessity of filling immediate technical gaps with available resources, even if it means compromising on experience initially. D3 pushed it even further for hard skills, suggesting that if they had the AI-driven tools and solutions available today that can perform perfect programming, at least for basic but heavy load coding, he would consider hiring individuals with even less expertise. However, he placed more value on industry expertise in their sector, as in telecommunications in Iran, it is almost essential to have some prior understanding of the industry due to its closed circle. This emphasis could be because he had five other startups and a venture capital firm to attend to, so he wanted his employees to know the market from the start to reduce his direct involvement as soon as possible, a fact he mentioned multiple times.

"Now with Chatgpt and such and such, we could have hired people with even less technical background. Among ourselves with these tools, it's way more possible with less like tough qualification [...] In Iran you almost need to be from Telecommunication [...]" - D5

"Many people came for one thing, but got hired for a different thing. For my first hire, I was looking for an office manager. At least I thought I needed that [...] But it turned out that I needed a COO. He had zero experience in tech and any technical skills with regard to that. However, in sports, he was managing a football club for the past four years, completely knowing the industry that we are active in [...] So I hired him mostly because of the industry from his qualifications." D4, Jogo

There were also instances where founders seemed to admit that this lack of expertise might have contributed to some mis-hires during the early days. For example, D1 noted that perhaps due to her inexperience, she couldn't identify some of the desperately needed qualifications in their early hires. This lack of expertise seems to have played a role in the fact that, on average, founders reported that almost half of their first early hires ended up being considered mis-hires. This does not necessarily mean that they let these employees go, but it did have a toll, at least in terms of the time and effort required to correct these hiring mistakes.

"Of course, I was obsessed with the topic and considered myself knowledgeable at the time. But later, I could admit that I misread the level of some expertise in the people we hired [...] We ended up using some of them in a different place but yeah. I could do better." - D3, Beeple.eu

In the end, it seems that for our founders with more extensive previous industry experience and technical qualifications, having the highest level of hard skills in their early hires was not as crucial. In contrast, younger founders with less technical backgrounds appeared to place greater importance on hiring technical problem solvers.

While technical expertise and industry experience are necessary, they appear to be considered baseline requirements rather than critical differentiators. Founders highlighted the importance of practical, foundational-level skills, focusing on the ability to deliver basic outcomes and solve practical problems rather than possessing top-level qualifications. This suggests that technical skills are valued for their immediate applicability in addressing the startup's needs rather than for their depth or specialization.

Proposition: It seems that founders of early-stage innovative startups place less emphasis on hard skills than suggested by existing literature.

5.2.1.2. Soft Skills

In our study, soft skills emerged as a critical aspect of early hires, identified and categorized through the insights gathered from our interviews. Soft skills encompass a range of interpersonal abilities and personal attributes that facilitate effective interactions and contribute to the overall culture and functioning of the startup. Throughout our research, we meticulously gathered various descriptions of these skills from the participants, leading to a comprehensive understanding of their importance.

Factors such as cultural fit (Zheng et al., 2021), risk tolerance and resilience (Cardon et al., 2009), networking and relationships (Stam et al., 2008), adaptability (Giardino et al., 2014; Edison et al., 2018), and learning capabilities (Marvel & Lumpkin, 2007), were more or less consistent with the literature, with adaptability being mentioned the most frequently. As shown in Table 4, all of the founders found adaptability to be one of the crucial criteria for early hires. This emphasis on adaptability may stem from the potential lack of technical skills and experience observed in the hard skills section as hiring criteria. If they have low levels of hard skills, they need to be at the top of their games in terms of adaptability to be able to respond to the startup's needs and align with its objectives rather quickly through quick learning

"It was possible that I ask them and say, ok, go out there and specialize on certain software or tools in a week [...] even before that, we always knew it wouldn't be a 100% specialty but I trusted them to manage to deliver enough and better than enough even often [...] I was looking for these people." - D1, Star8 Green Technology (Philippines)

"There aren't many workforces in VR and AR since. It's relatively new. I needed people who could gather fresh data, analyze it, master it, and then use it effectively real soon. Basically, I was looking for nerds who are up for the challenge." - D3, RWXR

"Innovative startups, like us are great universities. So we tend to recruit the best students and learners, right then and now." - D5

However, some new codes emerged throughout the interviews. These new codes included attributes like shared vision or as we labeled it “onboardness”, people/human skills, and self-changeability.

Shared vision, or as we labeled it, on-boardness, emerged as a critical soft skill in our study. This code reflects the importance founders placed on having early hires who not only understood but were also fully committed to the startup’s vision and mission. According to D4, this concept was essential for ensuring that early employees were aligned with the founders' strategic goals and conceptual understanding of the startup’s future. D2 and D3 also further emphasized this alignment and noted that it was crucial for them to foster a cohesive team dedicated to the startup’s long-term vision.

The shared vision, or on-boardness, represents the similarity in characteristics between the founders and early hires regarding their future vision. Founders who prioritized this attribute expressed that they needed their early hires to be fully on board with their vision, mission, and all of the conceptualization of their startup. They looked for candidates who not only understood the vision but were also willing to put in the hard work required to achieve it. This was often assessed through interviews or group work assignments to gauge the candidates' understanding and commitment.

"From the start, it was crucial that they understood and shared our vision. I needed people who didn't just see this as another job but see it as like more of a mission in their life and a goal that they were passionate about just like us [...] During the interviews, I focused on whether they genuinely grasped where we were headed and were on board for the journey ahead [...] I would ask one thing for 3 or 4 times to be sure " - D4 " - D3, Jogo

"Making our app and services accessible to all and expanding more, at least at the moment is super hard [...] it is indeed like a ship going into a storm. I need to know that people are truly truly on board, and ready to move towards our mission. Let's call it onboardness." - D2, RwxR

One other notable code that we identified was people/human skills, which emerged from descriptions such as "go-getters with people abilities," (D1) "human magnets," (D3), "people skills" (D4), and "humanities skills" (D5). Despite the varied terminology used by different founders, we collectively referred to this set of abilities as people/human skills or the collective of all soft skills, recognizing their importance in fostering strong interpersonal relationships and teamwork within the startup.

"When talking to him and my mom, we describe them as go-getters with people abilities. Those who can get people behind them and with them. Coordinating to get what was asked of them. That's essential in ad hoc environments and early stages." - D1, Star8 Green Technology Corp. (Philippines)

"It is a lot of pressure. In order to do it, you need to be a human magnet. I need those people." - D3, Bleepe.eu

"I would look for every people skills that I can find in the interviews." - D4, Jogo

"Many of the tests that I tend to use throughout the years were to discover what I call humanities skills. That's how individuals incorporate their own job-learned skills in a collaborative manner with all the team members. Like critical thinking, problem-solving, communications, cultural fit, even politeness, and so and so." - D5

Another crucial soft skill highlighted by prolific founders like D3 from Bleepe.eu, and D4 from Jogo was self-changeability. This skill was described as especially vital for early hires, as it mirrored the founders' own ability for self-development and transformation. Self-changeability differs from adaptability in that it involves a more profound shift in the individual's approach and mindset, rather than merely adjusting specific skills. This distinction underscores the importance of self-changeability in ensuring that early hires can grow and evolve alongside the startup, contributing to its long-term success.

"I can say with confidence that the whole process of this startup changed me in so many ways. Similarly, I noticed the same thing in all of my early four hires now that I think of it. If now I want to say what should early-stage startups look for, one important one is their ability to change. Always opt for self-development." - D3, Bleepe.eu

"One very big one is changeability. I get always amazed by the employees like Mojtaba, completely changing themselves, their career, their abilities and skills and attitudes and everything. Not just him, everybody else. Maybe it's due to the nature of the startup. Anyway, I would look for the ones with the most self-reflection, self-regulation and changeability attitudes. Gradually, but always." - D4, Jogo

Attributes such as cultural fit, adaptability, and learning capabilities are frequently mentioned, underscoring their critical role in the early stages of a startup. Additionally, new codes like shared vision (on-boardness), people/human skills, and self-changeability emerged as crucial factors. Founders seem to prioritize hiring individuals who can adapt, align with the startup's vision, and demonstrate a wide range of interpersonal abilities.

Proposition: It appears that founders of early-stage innovative startups prioritize soft skills over hard skills.

5.2.1.3. Jack of All Trades

"You can ditch all the criteria and just say jack of all trades, music to my ears. That's what we want." - D5

This quote potentially encapsulates the insights of the founders on the topic of jack-of-all-trades. In the context of early-stage startups, a jack-of-all-trades refers to employees who possess a versatile skill set, allowing them to handle various roles and responsibilities as needed. Essentially, it is the combination of all the hard skills and soft skills together as a trait. With the nature of being a jack-of-all-trades, one characteristic is that, due to the many aspects they dive into, the depth of their knowledge and expertise tends to be more on the average side of the spectrum. Therefore, all the founders of early-stage innovative startups from our sample emphasized this trait as something that needs to be consistently average across all the skills and abilities that these individuals possess. This flexibility is highly valued, as it allows the startup to adapt quickly to changing needs and challenges, maximizing the potential of a small team by leveraging its diverse capabilities.

"We wanted the ones who could pick up a crew driver and put a new desk together." - D4, Jogo

"One thing that we even had a test for was about 23 different skills which we measured before hiring [...] it included everything from communications to python programming [...] we wanted them to be average at all of them, anyone with any score below the average, we would drop them" - D1, Star8 Green Technology Corp. (Philippines)

"I say all of the abilities we talked about and many more. That's the thing. We don't know how many things they need to be good at. That's why I look for versatile people the most." - D2, RwxR

"Working in a startup is generally very hard if you're not in nature a jack of all trades." - D3, Beeple.eu

All founders emphasized the importance of having employees who possess a versatile skill set, allowing them to handle various roles and responsibilities as needed. This trait is characterized by a combination of both hard and soft skills, with the expectation that these individuals maintain an average level of proficiency across all areas. This flexibility is highly valued, as it allows the startup to adapt quickly to changing needs and challenges, maximizing the potential of a small team by leveraging its diverse capabilities.

Proposition: Founders of early-stage innovative startups consistently seek "jack-of-all-trades" qualities in their early hires.

5.2.2. Early Hiring

Based on the insights from our study, it appears that the hiring practices of early-stage innovative startups align closely with those outlined in the existing literature. Founders typically leverage personal networks, referrals, and online platforms such as LinkedIn to attract early hires. This consistency reflects the strategies highlighted by McCarthy et al. (2023) and Kimmel et al. (2020), where the founder's network and the diverse capabilities of the team are crucial in the recruitment process.

Also, All of the founders would emphasize personal growth and involvement in innovative projects to attract talent which has been noted by Choi et al. (2020).

"I remember precisely the first thing he started to talk about the startup was its potential. I was intrigued in a way from all this enthusiasm and I really felt there that I can grow with this great and rather big idea" - S1, Jogo

"It's our best weapon that I use. I always brag about the growth that employees had with other startups and with that they will get, first, reassured and then get the dopamine boost and will join happily and fully charged." - D5

As for sourcing the candidates, founders in our study frequently mentioned using LinkedIn for posting job ads, although some expressed concerns about the platform's effectiveness in recent years.

"Years ago LinkedIn was the best. Now not so much [...] We mostly use referrals." D5

"When I started to use platforms like Indeed and LinkedIn, I would get load and loads of nothing usable." D3, Bleepe.eu

Moreover, the preference for hiring individuals with whom the founders had prior connections was evident in most of the samples, even with our supply side sample, supporting the notion that personal networks play a very important role in startup hiring practices (Brymer & Rocha, 2021).

"From 4 people that we had, I knew them closely or through a close friend. I think it's only natural especially for me being young, I needed to be surrounded by the people I know and trust." D1, Star8 Green Technology Corp. (Philippines)

"When I knew them it was like 50% was done. We already knew what we wanted from each other." D2, RWXP

Proposition: Founders of early-stage innovative startups often leverage personal networks, referrals, and online platforms like LinkedIn to attract early hires.

Proposition: Emphasizing personal growth and involvement in innovative projects is a common theme and strategy among founders to attract talent.

Proposition: Founders with prior ownership or extensive experience may leverage that to promote employer branding and attract a better workforce.

Proposition: Founders may tend to work with individuals with whom they had prior connections. It seems that the younger and less experienced the founders are, the more they feel the need for familiar faces.

5.2.3. Tenure/Turnover of Early Hires (Evolution)

For the Tenure and Turnover section, it appears that from the roughly four early hires for each startup, in the majority of cases, only one of them stayed until today, and sometimes two. This indicates a rather high turnover rate, as reported by both the founders and early hires. However, consistent with the literature, this high turnover is not necessarily a negative aspect. It often helped the startups learn and evolve, as depicted by D3.

"The funding, the first funding we got, we used to call it learning money. Especially we used the term for our hirings. We would hire people, it wouldn't work out. We would pat on our back and say, we're learning, we're using the learning money." - D3, Bleepe.eu

"Of course, a lot of mis-hires happen a lot in the beginning, and not necessarily from the startup's part. Personally, I saw from the other startups that I was involved with, I would say maybe half the time it's the employee that wants out and be free of this pressure for example." - D5

Similarly, S3 confirmed it further by reporting a turnover of 50% and suggested that he felt the turnover could have increased after the acquisition which could be natural due to the shift in the ownership and decision-making criteria and processes.

"We would see half of the people couldn't work for any reason, from us 6, 3 of us remained. but after the acquisition, this happened more [...] or maybe it was because the total number increased and with it the number of bad hirings. But I felt it was relatively better before the acquisition." - S3, Friday news

As for S2, although he joined Monta as the 12th person and potentially could be out of our spectrum of early hires, his experiences resembled those of our other early hires. He reported his reason for departure was his suspicion of the startup's failure, which ironically was not the case as Monta scaled up and expanded exponentially only months after his departure.

"Of course, you're going to laugh at me now in retrospect of what happened because I left the startup because I thought they wouldn't make it in a weird way. I can start to explain, but since I know that I was wrong in my own head, I would spare you. But yeah, it felt that we wouldn't make it into even the next six months. But good things happened after I left in a few months. I'm happy for them, and I am actually in a good place right now, so I didn't lose that much, but yeah, I had a miscalculation." S2, Monta

It is important to clarify that we would not count movements within the departments, whether horizontal or vertical if they are only due to specific projects. This is customary for startups with their flat organization, where employees shift towards different projects. When we talk about moves here, we refer to an almost official position change, whether within departments or in the structural levels of the organization.

Things got worse in terms of stability when we realized that even for those who stayed, many were considered to be mis-hires in the first place. This meant that after being hired, once the founder realized a mistake had been made—sometimes even very soon into the interview process—they would change the individual's position and initially move them horizontally within the company. At the start, there is not much meaning in horizontal and vertical moves as it all feels like a circle. But even after the first year, with the definition of roles, these movements started to have meaning in terms of vertical and horizontal moves within the startup.

There were multiple examples of these incidences across all our founders. Some were more prolific in doing so, like D3 and D4. In contrast, D5 mostly dealt with the situation by either firing or moving people between startups in case of mis-hires, leveraging his connections in the market. For instance, D4 gave an example of wanting to hire his first employee as an office manager but ended up shifting the position of the candidate to COO during the first interview. D3 among the majority of our demand and supply side stated that from the early hires, if they have stayed, almost all of them are at least on the middle manager levels.

"If you now look at the company today, you can see a lot of managers, as we spoke about them earlier, that started being so low and so in the wrong place. That's why, from a certain point, we would have these monthly meetings, and we would ask people whether they want to move or not. Because we thought that maybe they can find better job descriptions for themselves within the company [...] I have done it many times with the employees at the start or now." - D3, Beeple.eu

Proposition: Founders of early-stage innovative startups often experience high turnover rates (3 in 4) among their early hires, which, while initially disruptive, can lead to valuable learning and organizational evolution.

Proposition: High turnover in the early stages of startups can be attributed to both mis-hires and the employees' desire to leave due to factors like high-pressure environments, rather than solely to hiring errors by the startup.

Proposition: Founders may frequently reassign roles within the organization as they identify mismatches between the initial hiring expectations and the employees' actual fit, using horizontal and vertical moves to better align roles with individual strengths and company needs.

Proposition: It seems that almost all of the early hires would end up in mid-level positions in roughly three years if they stay in the startup and the startup ends up scaling.

5.2.4. Evolution of HR Practices

In our study, we observed that the hiring practices of startups evolve significantly as they mature. Initially, these startups rely on completely informal methods of recruitment and onboarding. However, as they begin to scale up, they gradually introduce more formal structures such as consultancy agencies, work placement agencies, specialty HR and organizational development consultancies, and most importantly, internal HR departments, which typically do not exist at the start.

5.2.4.1. Informal vs. Formal

This evolution aligns with the literature, which suggests that as startups grow, their hiring practices become more structured and formalized (Karkhanis et al., 2023; Kemell et al., 2020; Cadorin et al., 2021; Choi et al., 2020). However, just as the literature does not provide a specific indication of when these changes occur, our study also found that this evolution happens at different intervals and phases of the startups' lifecycle based on various factors that were beyond the scope of our study to pinpoint precisely. We couldn't find any meaningful patterns indicating a consistent timing for this shift; it varied significantly among the startups in our sample.

It was evident from our interviews that initially, founders often handle the recruitment process themselves or rely on their personal networks. As the startup begins to achieve success and secure more funding, there is a shift towards more professionalized hiring practices. For instance, D1 from Star8 Green Technology mentioned that the hiring process became more formalized once they started receiving significant investments from their parent company. Similarly, D5 from Bleepe.eu highlighted the shift to using external recruitment agencies and internal HR departments as the company grew.

This gradual shift from informal to formal hiring practices reflects the need for startups to adapt to increasing complexity and scale, ensuring that they can attract and retain the right talent to sustain their growth and innovation. Just like the literature suggests, the exact shifting point for the hiring evolution was different for each startup, occurring at various times and stages of their development.

5.2.5. Founders' Managerial Background

5.2.5.1. Academic Vs. Industry Managerial Background

It seems that startup founders, in the initial phases of the startup, are at their best good leaders and know the “Why” of things rather than the “How” of things that managers do. They are mostly dreamers who see and try to aim for the future rather than tomorrow. It appears that they are better at coping with changes and they struggle in coping with complexities, which managers are good at. Many parts of hiring and retaining employees lie in management skills like designing job descriptions or performing the recruitment and onboarding process. The same situation exists in retaining employees with different managerial techniques like positive appraisal or setting career paths for employees.

Startup founders are experts in setting directions, aligning people with the startup goals, and providing motivation as a good leader would be. However, in the cases of founders with no management background (academic or industry), they are lacking in planning, budgeting, organizing, and staffing. This was more evident in parts of the second phase of the study on categorizing attractive alternatives for early hires. It seems that most founders without managerial backgrounds have limited knowledge of human capital concepts and practices to their minimal interactions with HR in the previous company for which they worked. Surprisingly, however, they are good at controlling and business problem-solving, which is inherently a management trait. Or it is better to say they got good at controlling and problem-solving relatively fast due to the desperate needs of the startup. D2 and D3 made a direct comment on it.

"I had to learn like everything on the go. Everything. My background in tech helped me solve business problems quickly, but managing people was a whole different thing." D2, RWXR

"I was constantly playing catch-up, trying to figure out how to manage the team while keeping other aspects on track." D3, Beeple.eu

In the initial stages, they don't have enough resources. So they need to be able to be everything and everyone all at once. Consequently, they need to be able to improve their abilities to solve business problems, in this case, human capital, real quick or the startup will cease to exist real soon, sooner than it could breathe or scale up with further growth or rounds of funding. That is where all of the founders without managerial backgrounds always seek consultancy, usually from their inner circles and friends, to help them get a grasp of human capital management quickly. For instance, D1, a young entrepreneur, sought the advice of her mother and her boss from the parent company, both of whom had rich managerial backgrounds, to help her in the hiring stages, from selecting and assessing candidates to onboarding new employees. As she identifies herself, this was what helped her the most to really improve her skills in managing human capital at the start.

In the opinion of most of the founders, however, they put more weight on managerial experiences in the industry compared to managerial education and academic managerial background. D5 quoted,

"There is no university better than our startups as a university... No need to go to the university to learn management. Although I have two masters of management myself." D5

Unless we find a compensation method or solution to the founders' lack of human capital managerial expertise, startups will face a lot of turnover in their early hires, who in their own opinion are the most important people to their startup. For founders without managerial backgrounds, in the first one or two years of the innovative startups, entropy in human capital management was high and ad hoc behavior towards it was paramount. Surprisingly, however, in their own opinion, it was helpful at the start, but at a certain point it would kill them and they need clear and well-defined processes in place.

"At first, the chaos was manageable and even felt beneficial because it forced us to innovate and adapt quickly. But eventually, it became clear that we needed more structure." Similarly, D4 noted, "Initially, the lack of formal processes helped us stay flexible, but as we grew, it started to hinder our progress and we had to introduce more formal HR practices." D1, Star8 Green Technology Corp. (Philippines)

Proposition: Founders without a management background tend to struggle with planning, budgeting, organizing, and staffing but excel at controlling and problem-solving due to the urgent needs of the startup environment.

Proposition: Founders often rely on consultancy from their inner circles or external experts to quickly grasp the human capital management skills necessary for early-stage startups.

Proposition: Managerial experience in the industry is valued more highly by founders than academic managerial education, with practical experience being crucial for the effective management of human capital.

Proposition: The lack of formal management processes in the initial stages can be beneficial for flexibility and innovation but ultimately requires formalization to sustain growth and reduce turnover.

Proposition: It seems that startups with founders who have extensive managerial backgrounds (both academic and industry) perform better in attracting, hiring, and retaining early hires compared to those without such backgrounds.

5.3. Early Hire Dynamics in Innovative Startups

Working for an innovative startup can be a unique and dynamic experience, characterized by a fast-paced and often unpredictable work environment. The literature on this topic suggests that employees in innovative startups often face a blend of challenges and opportunities that differ from those in more established companies.

5.3.1. Working Conditions of Early-Stage Innovative Startups

As we carefully examined the literature to understand the conditions of early hires in innovative startups, we found that the insights from our Demand and supply side largely aligned with existing research. The work environment and culture in these startups are indeed ad hoc, characterized by a high degree of flexibility and rapid change. Early hires face high expectations from both colleagues and founders, and there are abundant opportunities for growth, particularly if the startup becomes successful, as seen in our demand-side sample.

Throughout the interviews, three additional key codes emerged including flexible working conditions, relationship with leaders and colleagues, and perception of the startup's future success which we sub-categorised into flexible working conditions and dual work environments.

Flexible Working Conditions, was described as Flexibility in working hours and the ability to engage in multiple projects simultaneously were significant factors for early hires. This flexibility caters to their curiosity and desire for a dynamic work environment. For instance, S1 and S2 highlighted the importance of having floating hours and the freedom to explore various roles within the company. This flexibility often influenced their decision to stay with the startup.

Dual Work Environments

The "friend zone" environment is characterized by close, personal relationships between the founders and early hires, both on the demand and supply sides. This environment fostered a strong sense of belonging and support. This type of environment often involved continuous collaboration on projects, which extended into weekends, resulting in employees spending their weekends together working on startup tasks. As the projects settled down and free time became available, these same groups began spending their weekends together engaging in various hobbies and leisure activities. For example, D1 and his team enjoyed skiing, D2 organized a trip to Malaysia for three of his startups, and D5 and his team frequently went to the seaside quarterly.

"The same crowd working on the new outled for 5 consecutive weekend were going to malaysia. I mean, how about a well deserved collective rest." D2, RWXR

"Going to the sea with the teams changes the whole experience" D5

Surprisingly, these friendly interactions occurred without any systematic pattern within the same startups. This meant that while some founders and early hires formed strong bonds and engaged in these social activities, others within the same startup did not. This inconsistency in forming bonds led to the identification of the second environment type.

On the other hand, for those employees who did not form strong personal bonds with the founders or their colleagues, their environment was described as the “transactional zone”. In this environment, employees viewed their positions primarily as financial transactions and continuously evaluated the success rate and stability of the startup. They lacked the personal interactions that characterized the friend zone and were more focused on the practical, financial aspects of their roles.

A prime example of this environment is S2, who left Monta because he believed the startup would not succeed financially. Despite Monta's subsequent dramatic growth and success as a leading EV charging solution app, S2's perception of financial instability led him to leave. When asked if others shared his concerns, S2 noted, "It wasn't a clear message, but I can say half of the people had that perception and were talking about it."

"Of course, you're going to laugh at me now in retrospect of what happened because I left the startup because I thought they wouldn't make it in a weird way. I can start to explain, but since I know that I was wrong in my own head, I would spare you. But yeah, it felt that we wouldn't make it into even the next six months. But good things happened after I left in a few months. I'm happy for them, and I am actually in a good place right now, so I didn't lose that much, but yeah, I had a miscalculation." S2, Monta

Although our supply sample size is short, when categorizing them based on friend and transactional zone, it could potentially become one of the predictors of the early hires stay or leave the startup. Those in the friend zone tend to have higher job satisfaction and commitment, leading to longer tenure. Their personal relationships and sense of camaraderie foster a strong organizational culture and loyalty. Conversely, employees in the transactional zone are more likely to leave if they perceive financial instability or better opportunities elsewhere. Their focus on the startup's financial performance rather than personal relationships leads to a higher turnover rate.

Proposition: Founders who foster a friend zone environment with their early hires may experience higher employee retention due to increased job satisfaction and personal bonds.

Proposition: In contrast, employees in a transactional zone environment are more likely to leave if they perceive financial instability or find better opportunities, resulting in higher turnover rates.

5.3.2. Pull-Push-Mooring Framework

The Pull-Push-Mooring (PPM) framework is a widely used model in migration studies, but it can also be effectively applied to understand employee turnover and tenure. The framework consists of three primary components:

- **Push Factors:** These are the negative aspects or dissatisfaction elements in the current job or environment that "push" employees to consider leaving. Examples include poor working conditions, lack of career advancement opportunities, and organizational instability.
- **Pull Factors:** These are the attractive aspects or incentives offered by alternative opportunities that "pull" employees towards them. Examples include higher salaries, better job positions, and more promising career prospects.
- **Mooring Factors:** These are the personal or organizational anchors that either facilitate or hinder the decision to move. These can include personal ties, family obligations, loyalty to the current employer, or organizational policies that make it easier or harder to leave.

In the context of employee tenure and turnover in innovative startups, the PPM framework helps us understand why early hires choose to stay or leave. By categorizing the reasons into push, pull, and mooring factors, we can gain a clearer picture of the dynamics influencing these critical decisions.

Based on the insights gathered from our interviews and the subsequent categorization, in this segment, we consider S1 from Jogo and S3 from Friday News to be in the Friend Zone, whereas S2 from Monta is categorized in the Transactional Zone. The result is depicted in the table 5 below.

Category	ID	Pull	Push	Mooring
Friend Zone	S1 & S3	Reported Increasing workload without adequate compensation. -S1	Opportunities to work on innovative projects that align with personal interests and career goals. - S1	Strong personal relationships with founders and colleagues. -S1
		Personal conflicts with colleagues despite overall camaraderie. - S3	Offers from larger, more stable companies with better-defined career paths. - S3	Emotional attachment to colleagues and the startup's vision and mission. -S3
Transactional Zone	S2	Lack of clear communication from leadership.	More predictable and stable working environments.	Geographic proximity to home was the reason that made career decisions hard for him

Table 5: Pull, Push, Mooring factors for two categories of early hires

From the quotes provided by the participants on the supply side, we asked them to identify one factor for each of the determinants in the Pull-Push-Mooring framework. As shown in Table 5, these factors have been categorized into Friend Zone and Transactional Zone, derived from their insights. This categorization helps in understanding the dynamics of early hires in innovative startups and how their perceptions and relationships within the company influence their career decisions.

When looking at the content of their insights, different values in their preferences become evident. From the insights of S1, it is clear that he can be categorized as being in the Friend Zone, if we accept this as a category that truly existed. Similarly, although to a slightly lesser extent, S3 also fits into the Friend Zone category, with his emotional attachment to colleagues being the most difficult factor for him to consider regarding his career. In contrast, S2's insights do not reflect any semblance of such relationships and are purely transactional towards the startup. This transactional nature is consistent with his decision to leave the company early on, indicating a lack of deeper emotional ties or loyalty to the startup.

6. Conclusion

From the insights of our sample, early hires are, on average, the first four to five employees that innovative startups hire in their early stages. For their description, it seems that the most emphasis centers on employees who joined within the first year after the startup's inception. Additionally, there is considerable focus on employees who were entirely managed by the founders—from initial contact to onboarding and initiating projects—ensuring alignment with the startup's vision. Conversely, less emphasis was placed on employees hired after the first funding round and those employed before significant funding or acquisition. Although these factors can still be categorized by their characteristics, they were deemed less critical than the other two factors based on the analysis of our sample data.

The hiring criteria for early-stage innovative startups appear to reflect a balanced emphasis on both hard and soft skills, with a notable preference for versatility and adaptability. While the literature often emphasizes the critical need for deep technical expertise in the early stages of startups, our findings suggest a somewhat different picture. Founders seem to prioritize practical problem-solving abilities and foundational technical skills over specialized expertise, valuing candidates who can readily adapt to the startup's dynamic needs. Soft skills such as cultural fit, adaptability, learning capabilities, shared vision, and self-changeability are highly regarded, underscoring their critical role in fostering a cohesive and resilient team. The consistent demand for "jack-of-all-trades" further highlights the need for employees who can wear multiple hats and contribute across various functions, ensuring the startup's agility and sustained growth in its formative years. Founders are also completely okay with the side effect that "jack-of-all-trades" might not possess deep expertise in any one area but are spread across a broad range of skills, which is deemed valuable for the flexible and multifaceted environment of a startup.

The hiring practices and challenges faced by early-stage innovative startups in our study largely align with the existing literature. There were no dramatic discrepancies observed. Founders rely heavily on their networks and online platforms to find candidates, face significant competition from established firms, and use a variety of strategies to attract and retain talent. They may prefer to work with their

prior acquaintances and it seems that the younger and less experienced the founders are, the more they feel the need for familiar faces. Lastly, founders consistently try to promote employer branding by leveraging their previous success or extensive experience to attract better candidates.

The tenure and turnover patterns among early hires in our studied startups reveal a high turnover rate, with typically only one or two out of the initial four hires remaining over time. This aligns with existing literature, suggesting that high turnover fosters learning and adaptation within the organization. Founders often referred to initial funding as "learning money," acknowledging the trial-and-error nature of early hiring practices. While challenging, frequent turnover provided valuable lessons that contributed to the startups' growth.

It was communicated that turnover was not solely due to mis-hires but also because employees struggled with the high-pressure environment of early-stage startups. Additionally, acquisitions increased turnover due to shifts in decision-making processes and organizational changes. Reassigning roles within the organization was common, helping to better align individual skills with company needs. This practice, though initially destabilizing, ultimately fostered a more cohesive and effective team. Notably, almost all early hires who remained with the startup through its growth ended up in mid-level positions, underscoring their importance in the company's long-term development.

The founders' managerial background, with an emphasis on experience-based managerial background more than the academic managerial background, is one of the most important factors in handling and outcomes of human capital practices of early-stage innovative startups. This finding is consistent with the literature, suggesting that practical experience in managing teams and projects can significantly influence the success of early hires and overall startup performance.

Generally, the working conditions for early hires in innovative startups are characterized by a high degree of flexibility, rapid change, and a blend of challenges and opportunities. The insights from our study, consistent with the existing literature, reveal that early hires often operate in an ad hoc environment with high expectations and significant growth opportunities, especially if the startup succeeds. Notably, two distinct work environments emerged from our interviews: the friend zone and the transactional zone. The friend zone, marked by close personal relationships and a strong sense of belonging, fosters higher job satisfaction and longer tenure. In contrast, the transactional zone, where employees view their roles primarily as financial transactions, results in higher turnover rates due to a focus on financial stability and career advancement.

These dual environments shape the experiences and retention of early hires, influencing their tenure through different push, pull, and mooring factors. The Friend Zone category highlights the importance of strong personal connections and emotional attachments, while the Transactional Zone underscores the need for stability and clear career paths. Understanding these dynamics and the factors that influence early hires can help startups tailor their retention strategies more effectively. These findings

underscore the importance of fostering personal relationships and supportive work culture to enhance employee retention in early-stage innovative startups.

7. Future Research

Based on the overall views on this study, we propose four directions for future research:

First, due to the natural limitations of this study and the limited sample size, we recommend a more comprehensive quantitative research approach using surveys. These surveys should be conducted with similar sample characteristics of successful innovative startups. Starting with sources like Crunchbase to gather data on startups, researchers can select samples from there and approach the founders for participation. This approach would provide a clearer indication of the weight of the factors and competencies that startups seek in their early hires. It can also help identify the more accurate and representative hiring criteria, and best hiring and retention practices, and offer a weighted measure of the values and preferences of early hires that determine whether they stay or leave the startup. With more comprehensive data, we could gain a clearer understanding of best practices and identify areas for improvement on both the supply and demand sides of the workforce market in early-stage innovative startups.

Second, this study focused on successful companies—those that scaled up or were acquired by larger firms with substantial funding. This excludes the majority of startups that failed. Since most innovative startups fail after starting operations, the results of this study are not applicable to these failed startups. It would be beneficial to study these unsuccessful startups to understand why they ceased to exist shortly after their inception and initial hiring.

Third, due to the limitations of this study, we suggest a longitudinal study involving a larger sample size. This study should begin with the startups' initiation and follow them through their life cycle, reporting on hiring practices and the evolution of early hires after three to four years. This approach would provide a more comprehensive understanding of the dynamics and impact of early hires on startups, helping to develop a framework for early-stage innovative startups in various industries.

Lastly, we recommend conducting similar studies across different industries, sectors, and markets. This would help identify the unique characteristics and needs of startups in different sectors. Due to the inherent differences in these industries, we anticipate that the results will vary, offering valuable insights specific to each sector.

8. Managerial Implications and Recommendations

During the stages of conducting this research, we were always on the lookout for managerial implications as one of the results besides the hypotheses that we made throughout the results section and after that, throughout the paper. Listed below are the eight main ones that we could identify from our research.

- **Balancing Technical and Soft Skills:** While technical skills are necessary, our research highlights the importance of soft skills, such as adaptability, communication, and cultural fit. Managers should focus on hiring employees who not only meet technical requirements but also align with the startup's culture and can adapt to its dynamic environment.
- **Emphasizing Personal Networks and Referrals:** Leveraging personal networks and referrals can be an effective strategy for finding reliable and compatible early hires. This approach can help mitigate the risks associated with high turnover rates by ensuring that new hires are already somewhat familiar with the startup's culture and expectations.
- **Fostering a Positive Work Environment:** Creating a supportive and collaborative work environment can significantly impact employee retention. Founders should strive to build strong personal relationships with their early hires, fostering a sense of belonging and commitment. Organizing team-building activities and maintaining open communication can help in this regard.
- **Adapting Hiring Practices as the Startup Grows:** Startups should be prepared to evolve their hiring practices as they scale. Initially, informal methods may suffice, but as the startup matures, it will be necessary to implement more structured recruitment processes, potentially involving external agencies and internal HR departments.
- **Managing Expectations and Providing Growth Opportunities:** Clear communication about job expectations and career growth opportunities is crucial. Early hires need to understand the startup's vision and their role in achieving it. Providing avenues for personal and professional growth can motivate employees to stay committed and contribute to the startup's success.
- **Addressing Dual Work Environments:** Recognizing the existence of dual work environments within a startup can help managers tailor their management approaches. Understanding that some employees may be more driven by personal connections (Friend Zone) while others by financial stability and career progression (Transactional Zone) allows for more personalized and effective retention strategies.
- **Leveraging Prior Experience:** Founders with extensive industry experience and previous startup success can use their backgrounds to enhance employer branding and attract top talent. Highlighting past achievements and growth stories can reassure potential hires and inspire confidence in the startup's potential.
- **Utilizing Push, Pull, and Mooring Factors:** Understanding the push, pull, and mooring factors that influence employee turnover can help managers devise strategies to retain talent.

By addressing the concerns that push employees away, leveraging the factors that attract them, and strengthening the elements that move them to the company, startups can create a more stable and motivated workforce.

Although the size of this research was limited, it can shed light for managers and founders of early-stage innovative startups to consider and improve their hiring and retention strategies.

9. Limitations

The researchers acknowledge the limitations of this study, which may have influenced the results and conclusions in some way:

First, we intended to interview both the founders and early hires of the same startups. However, except for one case, we were unable to connect with the same early hires from the startups due to various issues. We did our best to interview similar early hires from other startups, but this limitation might have impacted the study.

Second, although the sample consisted of generalized innovative startups with many common traits, we recognize that differences in the nature of various industries and sectors may necessitate more specific categorizations. Without these specific categorizations, the accuracy of the results may have been reduced, and the findings may not be applicable across all industries.

Third, this limitation might be considered more of an obvious caveat. Due to the exploratory and descriptive nature of this study, the results are essentially unproven hypotheses that lack extensive representation. This means our findings should be interpreted with caution and seen as a starting point for further research rather than definitive conclusions.

Lastly, all participants in this study communicated in English, which was a second language for both the participants and the researcher. This could have led to some meanings being lost in translation. This language barrier could be an additional limitation of this study.

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