



# Survivorship Factors: Sources of Success for German Startups

Felix Wiedemann

Dissertation written under the supervision of Professor Peter V. Rajsingh

Dissertation submitted in partial fulfilment of requirements for the MSc in International Management with specialization in Strategy & Consulting, at the Universidade Católica Portuguesa, September 2023.

## **Abstract**

**Title:** Survivorship Factors: Sources of success for German startups

**Author:** Felix Wiedemann

The German startup environment has been living through turbulent times in recent years. With macroeconomic uncertainties as well as political discussion about a greater focus on startups. Through these turbulent times, certain success factors have emerged for successful startups. These commonalities ensure startups successful business operations through certain internal as well as external success factors.

This work identifies those success factors and the influence of personal characteristics on startup intentions in Germany. This was done using a mixed-methods approach of quantitative and qualitative data captured through an online survey, semi-structured expert interviews, and a thorough literature review. Overall, the survey showed that startup intentions are only shaped by certain personality traits and rather rely on personal circumstances of the person like entrepreneurial activity in the family or the possibility to draw inspiration from success stories. Experts unanimously agreed on access to capital as the main success factors of startups in Germany. But other relevant factors being the experience of the founder, the team he/she can build around him/her and the product they build for a market with maximum potential.

Overall, Germany has the best prerequisites for building a successful startup ecosystem. However, political reforms and a cultural shift are essential to make the scene more competitive for the future.

**Keywords:** startup, entrepreneurship, success factors, venture capital, Germany, survivorship factors, future, ecosystem

## Sumário

**Título:** Fatores de sobrevivência: Fontes de sucesso para as startups alemãs

**Autor:** Felix Wiedemann

O ambiente das startups alemãs tem vivido tempos turbulentos nos últimos anos. Com incertezas macroeconômicas e discussões políticas sobre uma maior atenção às startups. Durante estes tempos turbulentos, surgiram certos fatores de sucesso para as empresas em fase de arranque serem bem-sucedidas. Estes pontos comuns garantem o sucesso das operações comerciais das empresas nesta fase através de determinados fatores de sucesso internos e externos.

Este trabalho identifica esses fatores de sucesso e a influência das características pessoais na possibilidade de ter intenção de criar empresas na Alemanha. Para o efeito, foi utilizada uma abordagem de métodos mistos com dados quantitativos e qualitativos obtidos através de um inquérito on-line, de entrevistas semiestruturadas a peritos e de uma análise exaustiva da literatura. De um modo geral, o inquérito mostrou que a condição ter a intenção de criar uma empresa é moldada por certos traços de personalidade e depende sobretudo das circunstâncias pessoais da pessoa, como a atividade empresarial na família ou a inspiração em histórias de sucesso. Os peritos foram unânimes em considerar o acesso ao capital como o principal fator de sucesso nas empresas em fase de arranque na Alemanha. Outros fatores relevantes são a experiência do fundador, a equipa que este consegue formar à sua volta e o produto que constrói para um mercado com o máximo potencial.

De modo geral, a Alemanha tem os melhores pré-requisitos para construir um ecossistema de start-ups de sucesso. No entanto, as reformas políticas e uma mudança cultural são essenciais para tornar o cenário mais competitivo para o futuro.

**Palavras-chave:** startup, espírito empresarial, fatores de sucesso, capital de risco, Alemanha, fatores de sobrevivência, futuro, ecossistema

## **Acknowledgments**

To begin with, I would like to thank my supervisor Peter Rajsingh for his constant support and his inevitable professional and personal advice. His guidance and feedback were essential in the process of completing this thesis. Furthermore, I would also like to thank all the experts for their input during the expert interviews.

I would also thank my friends which I met along the way for endless experiences and memories. They made my time in Portugal even more special and unforgettable.

Finally, I want to thank my family for always being there for me. Without you none of this would have been possible.

**Table of Contents**

- Abstract .....II
- Sumário ..... III
- Acknowledgments ..... IV
- Table of Contents ..... V
- Abbreviations .....VII
- List of Tables..... VIII
- List of Figures ..... IX
- 1. Introduction ..... 1
- 2. Literature review ..... 3
  - 2.1. Introduction ..... 3
  - 2.2. Startup definitions and current management literature..... 3
  - 2.3. Startup success definitions and metrics ..... 4
  - 2.4. Success factors of startups ..... 5
    - 2.4.1. Internal success factors..... 5
    - 2.4.2. External success factors ..... 7
    - 2.4.3. Other success factors ..... 8
  - 2.5. Failure reasons of startups ..... 8
  - 2.6. German startup environment ..... 8
  - 2.7. Personality traits and startups ..... 11
- 3. Methodology ..... 13
  - 3.1. Research Design ..... 13
  - 3.2. Data collection ..... 13
    - 3.2.1. Primary data collection – Expert Interviews ..... 13
    - 3.2.2. Primary data collection – Survey ..... 15
    - 3.2.3. Secondary data collection..... 16
- 4. Analysis and discussion ..... 16

4.1.	Impact factors on startup intention .....	16
4.1.1.	Demographics.....	16
4.1.1.1.	Personal startup behavior .....	19
4.1.1.2.	Personality traits.....	21
4.1.2.	Regression analysis .....	21
4.2.	State of startup Germany and success factors for the future .....	23
4.2.1.	Success factors for German startups .....	24
4.2.1.1.	Financing as main survivorship factor .....	24
4.2.1.2.	Internal success factors.....	24
4.2.1.3.	External success factors .....	26
4.2.2.	Current state of “Startup Germany” .....	27
4.2.2.1.	Strengths of the German startup environment.....	27
4.2.2.2.	Weaknesses of German startup environment .....	28
4.2.3.	The future of “Startup Germany” .....	31
5.	Conclusion.....	33
6.	Limitations and future research.....	35
7.	References .....	36
	Appendices .....	A
	Appendix 1 – Survey questionnaire.....	A
	Appendix 2 – Interview guideline .....	B
	Appendix 3 – Interview results.....	C
	Appendix 4 – Interview Summaries .....	E

## Abbreviations

B2B	Business to business
CEO	Chief Executive Officer
ESOP	Employee stock option plan
EU	European Union
FFM	Five Factor Model
IE	Industry expert
IPO	Initial public offering
OECD	Organisation for Economic Co-operation and Development
SF	Startup founder
SME	Small and Medium sized enterprises
VC	Venture capital/Venture capitalist

## List of Tables

Table 1 Overview of interviewed experts .....	15
Table 2 Distribution of startup behaviour by origin in % .....	20
Table 3 Regression analysis .....	22
Table 4 Survey questions .....	B
Table 5 Expert interviews thematic mentions .....	E
Table 6 Answers SF1 .....	E
Table 7 Answers SF2 .....	F
Table 8 Answers SF3 .....	F
Table 9 Answers SF4 .....	G
Table 10 Answers VC1 .....	G
Table 11 Answers VC2 .....	H
Table 12 Answers VC3 .....	H
Table 13 Answers VC4 .....	I
Table 14 Answers IE1 .....	J
Table 15 Answers IE2 .....	J

**List of Figures**

Figure 1 VC investments in European start-ups in 2022 ..... 2

Figure 2 Company survival rate after 3 years by industry (Statistisches Bundesamt, 2023)..... 9

Figure 3 Hypotheses tree ..... 16

Figure 4 Gender distribution (n=414) ..... 17

Figure 5 Origin distribution (n=414)..... 17

Figure 6 Age distribution (n=414) ..... 18

Figure 7 Race distribution (n=414) ..... 18

Figure 8 Income distrubution (n=414) ..... 19

Figure 9 Number of people who created startup or have intention by Origin ..... 19

Figure 10 Distribution of personality traits ..... 21

# 1. Introduction

Since the 1970s, startups have been disrupting goods and services with their agile and innovative approaches towards business (Skawińska & Zalewski, 2020). Many startups have developed into significant large companies and conquered markets across the world with ease. But over two thirds of startups fail and never create positive returns for their investors (Eisenmann, 2021). What makes some startups survive while others fail?

Success factors for performance are extensively discussed in business research. Success is generally referred to in terms of increasing profits, employee growth or higher productivity (Diehm, 2017). Michael Porter frames competitive advantage as the ability of a company to create superior value for its customers. This accrues though having a unique value proposition, product differentiation, cost leadership, efficiency, innovation, customer focus, and strong leadership (Porter, 1985; Porter, 1990). But are these factors also relevant for startups? Or are critical success factors completely different? For instance, McKinsey describes key success factors for growth and therefore success in startups in the following way: Is there structure built for growth? Does the company have effective ways of working? Is there qualified talent in the company? Does the company have a distinctive culture? Does the company have leadership capabilities at scale? And does the firm have a founder CEO and a top team? (McKinsey, 2022). In the first part of this thesis, we shall discuss critical success factors of startups that contribute to their longevity. The focus will be on the German startup environment.

Germany has developed into a startup hub in recent years with the most (64 in total (Dealroom, 2023)) unicorns<sup>1</sup> in the EU. This is a significant higher number compared to other industrial nations in the European union. Also from a financing perspective, which is one of the main indicators for the size and success of the startup market, Germany ranks second in the EU<sup>2</sup> with around €12bn financing sum of startups just behind France with €15bn (Dealroom.co, 2023).

---

<sup>1</sup> Startups with a market evaluation over 1 billion euro (Bendel, 2023), total number incl. startups which had an +€1bn exit

<sup>2</sup> Since 31<sup>st</sup> January of 2021, the United Kingdom is no longer part of the EU and therefore excluded in this reasoning.











		% change last 12 months	▼ 2022
	UK	-27%	\$30B
	France	7%	\$15B
	Germany	-42%	\$12B
	Sweden	-36%	\$6B
	Switzerland	28%	\$5B
	Netherlands	-49%	\$4B
	Spain	-8%	\$4B
	Ireland	1%	\$2B
	Finland	-1%	\$2B
	Norway	-30%	\$2B

Figure 1 VC investments in European start-ups in 2022

What makes these companies stand out from their peers in Germany (and Europe) and why do they survive, despite the high overall failure rate of startups? Furthermore, all potential founders of startups in Germany shall be characterized from a personality perspective. Discussing to what extent founding intentions can be explained by personality traits. The answer to this question will be developed in comparison to a non-German sample.

This thesis will first review the literature about critical success factors pertaining to startups, current understanding of the particularities of the German startup environment and influence of personality traits on startup intentions. The hypotheses found will then be interrogated by conducting semi-structured interviews and conducting a survey, to answer the following research question:

*RQ: Are there particularities about the German startup environment and culture that enable or promote startup survival; and what will secure and enable success for German startups?*

Finally, the results will be evaluated to draw conclusions concerning the RQ.

## **2. Literature review**

### **2.1. Introduction**

This literature review will focus on the most common definitions of startups and their success, sources of success and potential failure for startups and to what extent this can be explained by management theory of dynamic capabilities or the resource-based view. It concludes with an overview of the specifics and characteristics of the German startup industry. Moreover, personality traits as such are described and the influence on startup intentions is examined. The literature builds the basis for the hypotheses which are discussed and validated in expert interviews and a survey.

### **2.2. Startup definitions and current management literature**

In management, startups are commonly referred to as a type of independent company founded from scratch. This distinguishes them from companies that are taken over or transformed (Kollmann, 2022). Kollmann further characterizes startups as companies that are younger than ten years, have planned employee and/or revenue growth, and are highly innovative in their products, services, business models, and/or technology. Eisenmann et al. (2011) note that such young companies are typically confronted with resource constraints and deal with uncertainty. Blank & Dorf (2012) focus more on the founder, describing a startup as a faith-based enterprise built on the founder's vision without any initial notable facts. The task of the founder and team is to translate that vision into reality. Skawińska & Zalewski (2020) define the essence of a startup as a young, small, independent, creative, innovative company that performs research and development activities to solve real problems and propose future solutions with an attractive business model and a talented team.

Startups can further be differentiated from SMEs in several ways. Startups do not have a market position in their early stages and base their products and/or business models on innovation while relying on technology to achieve and sustain a competitive advantage. Startups also tend to think big and seek to rapidly grow their reach and revenue, whereas SMEs may have a small-scale regional focus with no intention of enormous growth. Finally, startups often rely on venture capital funding to grow their business, whereas SMEs are mainly funded privately or by banks (Santander, 2022).

In recent years two famous philosophies on how to approach one's startup have emerged in the startup world. The approaches from Eric Ries and Peter Thiel follow contrasting ways of achieving success in the startup landscape.

Eric Ries advocates the Lean Startup method, which focuses on implementing customer feedback as early as possible through the use of Minimum Viable Products (MVPs) and a continuous build-measure-learn feedback loop. This iterative process allows startups to pivot and change direction or preserve and continue with their current strategy based on customer input (Ries, 2011).

On the other hand, Peter Thiel emphasizes the importance of creating revolutionary and creative solutions rather than incremental innovations for existing products. He suggests that competitive markets erode profits, and therefore, companies should strive to create a monopoly in their respective markets. By establishing a dominant market position, a company can exert control and generate sustained profits (Thiel, 2014).

### **2.3. Startup success definitions and metrics**

The definition of startup success can be seen from many different perspectives. While most of the literature focuses on quantitative measures like revenue or number of employees, others factor in qualitative measures, such as brand reputation or survival itself. Since startups are young companies, one easy definition of success is survival (Rauch, 2020). When a company manages to survive the hard first years where most fail, they leave the startup phase and can be seen as a success. Since most startups receive funding in the form of venture capital, when venture capital funds invest money and sometimes mentor young companies, certain stages of funding can define the survival of a startup. In VC terms, startups receive funding in different series, starting from seed funding, series A up until series F and more. The companies invested in count as startups up until the end of series C funding. Following the seed and series A stages, subsequent funding rounds are considered startup growth funding in series B and C. At the point in time when a startup receives series D funding or further, they are considered a scale-up, and “survived” the startup stage. Now, startup risk is low, and these firms have developed into established companies with up to 1,000 employees (Y Combinator, 2023).

When considering a more quantitative view of startup success, percentage growth, turnover, profit, return on investment, productivity (output per man-hour) and number of employees can be taken as success indicators (Brandstätter, 2011). Steffens et al. (2009) describe several other metrics such as sales growth and profitability (return on assets). The authors also indicate company age as an additional metric, as this can serve as an indicator of a successful firm once it surpasses a certain threshold (E.g., after 10 years firms are no longer startups).

## **2.4. Success factors of startups**

According to current management theory, a company will be successful by achieving sustainable competitive advantage in the market in which they are competing (Teece et al., 1997). The dynamic capability framework of Teece et al. (1997) describes competitive advantage through a firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing competitive environments. Competitive advantage can be built through internal processes and their deployment and evolution over time. External capabilities define how companies relate to their suppliers, their positioning in the market, their alliances and technological collaborations, and how they handle customer relationships (Teece et al., 1997). Teece (2007) later added that companies must also focus on so-called micro-foundations of dynamic capabilities, meaning that a firm needs individual-level actions to contribute to the overall dynamic capability of a firm. Examples for these are developing skills, knowledge, and the mindset of the employees of the firm (Teece, 2007). The other common approach towards competitive advantage is the resource-based view from Barney (1991), where a company's sustained competitive advantage is held to occur through valuable, rare, inimitable, and non-sustainable resources and capabilities, such as assets, skills, and knowledge. A company's management, therefore, has the task of acquiring and gathering such resources and capabilities to achieve and sustain competitive advantage. Both these frameworks have been criticized for various reasons ranging from being ambiguous and tautological to not having predictive value insofar as they try to explain how firms acquire and sustain competitive advantage (Lieberman, 2022).

### **2.4.1. Internal success factors**

Internal success factors can be described as variables that come from within the startup over which the founder and the management team have a great degree of control (Geibel & Manickam, 2016). The number and quality of patents and new products that a startup can develop can be indicators of such success factors. Aminova & Marchi (2021) further indicate that for a startup to have long-term success, the founders need a certain level of education and should assemble a highly skilled team around them (Aminova & Marchi, 2021). In a TED talk in 2015, Bill Gross explains that internal startup success depends on having a highly coherent and capable team. He also mentions that the underlying value proposition of the startup needs to be either of high value to potential customers, have a large disruptive capacity, or have a meaningful market fit (Gross, 2015). While trying to create a framework for evaluating startups, Payne (2011) came up with several categories indicating potential startup success. The most

important success factor is experience of the management team and the capabilities of the founder (E.g., having served as a CEO before). Furthermore, the strength of the product, whether defined and developed, compelling to potential customers, or if the intellectual property of the product is secured, increases the probability of success. Lastly, a well-thought-out marketing strategy is key for implementing a successful startup (Payne, 2011).

In a text-mining study over Twitter (now called X), Saura et al. (2019) found that the amount of time the founder invests in a company directly correlates with its success. Moreover, founders' experience in the field of the startup and their capacity to commercialize the enterprise is important for its success. The sheer survival of the company and the growth of its headcount are also indicators of long-term success (Saura et al., 2019). In an interview with a series of successful and failed startups, Gonzalez (2017) discovered that career autonomy desired by the founder is one of the main reasons of a startup to be successful. In addition to this, support and utilization of personal and professional allies increased success rates. This needs to be done proactively by the founder. Lastly, a startup needs to understand the margin of safety. Securing positive cash flows before running out of capital is key for startup survival (Gonzalez, 2017). To ensure survival, implementing and maintaining market responsiveness is very important. Additionally, when growing fast, implementing structures and processes is important. All this supports goals set by the founder and management team, which need to be communicated internally and externally, to ensure survival (Picken, 2017).

The internal success factors most mentioned in the literature are the importance of the team and the culture within the firm (Berkus, 2006; Geibel & Manickam, 2016; Gross, 2015; McKinsey, 2020; Pasayat et al., 2023; Saura et al., 2019; Sevilla-Bernardo et al., 2022). This entails not only the skillset that the team brings to the table, but also includes the ability to share the founder's and company's vision (Geibel & Manickam, 2016). Sometimes founders should even weight a team-member's potential over experience and allow the person to develop with the firm over time (McKinsey, 2020). A healthy culture within the startup serves as the basis for employee satisfaction and hence potential success (McKinsey, 2020; Picken, 2017). A coherent, dedicated and highly skilled team can, therefore, be seen as a main driver for startup success.

Thus, the micro-foundations mentioned by Teece (2007) also find applicability in the startup world. Especially in small companies where the number of employees in the early days is low, the quality of the people can have a huge influence on long-lasting success. In addition, these internal success factor implicate the resource-based view by Barney (1991). The success of a

startup is the result of the internal resources and capabilities, as discussed in the resource-based view of the firm.

#### **2.4.2. External success factors**

The importance of external success factors arises from the limited direct influence the founder has over them and these therefore need special attention. They develop as a result of the environment the startup is placed in Geibel & Manickam (2016). The choice of industry cannot be seen as a success factor but maximizing the relative innovativeness of a firm within an industry can eventually determine performance (Aminova & Marchi, 2021). For a startup to be successful in the long run, the size of the addressable market is important for increasing the probability of success (Payne, 2011). The market therefore needs to be at a certain stage already, so that products can be positioned appropriately, building a basis for sustainable long-term growth (Picken, 2017).

Access to new talent is another element conducive of success. Being able to recruit national and especially international candidates from top universities is a reason that startup hubs tend to locate close to the best universities (Geibel & Manickam, 2016). Geibel & Manickam (2016) further mention the importance of access to new and existing markets. The willingness of people to try new innovations and products and to become early adopters is another factor for a startup to gain market traction (McKinsey, 2022). This is also in line with the theory of disruptive innovation by Christensen (1995). By identifying unmet needs, focusing on underserved segments, providing disruptive value propositions, utilizing technology, and continuously improving their offerings, start-ups can potentially better serve both new and, later, existing markets (Christensen & Bower, 1995).

Timing is also significant with respect to when a startup launches its product or service (Gross, 2015; McKinsey, 2022; Sevilla-Bernardo et al., 2022). The literature mentions different aspects when it comes to timing. Primarily, the target market and therefore the target customers need to be ready for the new product. The product shouldn't be ahead of its times. In addition, being a first mover (being the first entering a market or launching a certain product) can create an edge (McKinsey, 2022). Contrary to that is the second mover advantage, where firms have advantages when entering a market in a later, more mature state. The choice when to enter a market to be successful can depend on production costs of the product, expected life of product category or switching costs of the customers (Shankar & Carpenter, 2013).

### **2.4.3. Other success factors**

Other factors for startup success include all support structures a firm can receive. Examples here can be financing (E.g., through VC funds or angel investors, governmental grants or loans) or collaborations with accelerators or incubators. Startup accelerators support early-stage, growth-driven companies through education, mentorship, or financing (Hathaway, 2016). Startups join these accelerators for a fixed period of time to receive intense, rapid and immersive education. Incubators, on the other hand, are collaborative programs for startups to help in them in their earliest stage by providing workspace, seed funding, mentoring, and training (Peek, 2019).

### **2.5. Failure reasons of startups**

CB Insights (2021), a well-known technology market intelligence company, analyzed more than 110 startup failures in the United States and concluded the most common failure reasons. 38% of the startups failed because they ran out of capital or failed to raise new capital. The second most common reason for failure, accounting for 35%, is not addressing a market need. This describes a product that might be “nice to have” rather than actually needed. Other important reasons for failure include getting outcompeted by competition (20%), having a flawed business model (19%) or having legal/regulatory challenges (CB Insights, 2021).

Another reason often mentioned is having the wrong team (CB Insights 2021; Bednar 2017). Weak decision-making and poor leadership are the reasons why founders and leadership teams can induce startup failure (Wagner, 2013). According to Triebel et al. (2018), a founder’s life situation has a significant influence on a startup when there are at least two founders (81% of startups in Germany have at least two founders (DSM, 2022)). Reasons include different expectations for the company, uneven participation in the development process, disparate life situation of the founders or one founder becoming alienated from the company after some time (Triebel et al., 2018).

### **2.6. German startup environment**

The German startup monitor surveyed 1976 startups in Germany to figure out their characteristics (DSM, 2022). Key characteristics included: The three most common startup industries in Germany are information and communication technology (29.7%), medicine and health care (10.6%), and food and consumption goods (10.2%). Of all companies, 65% follow digital business models while having an average of 18,4 employees. The main business of

German startups is B2B (71%) while generating around 80% of revenue in Germany (DSM, 2022).

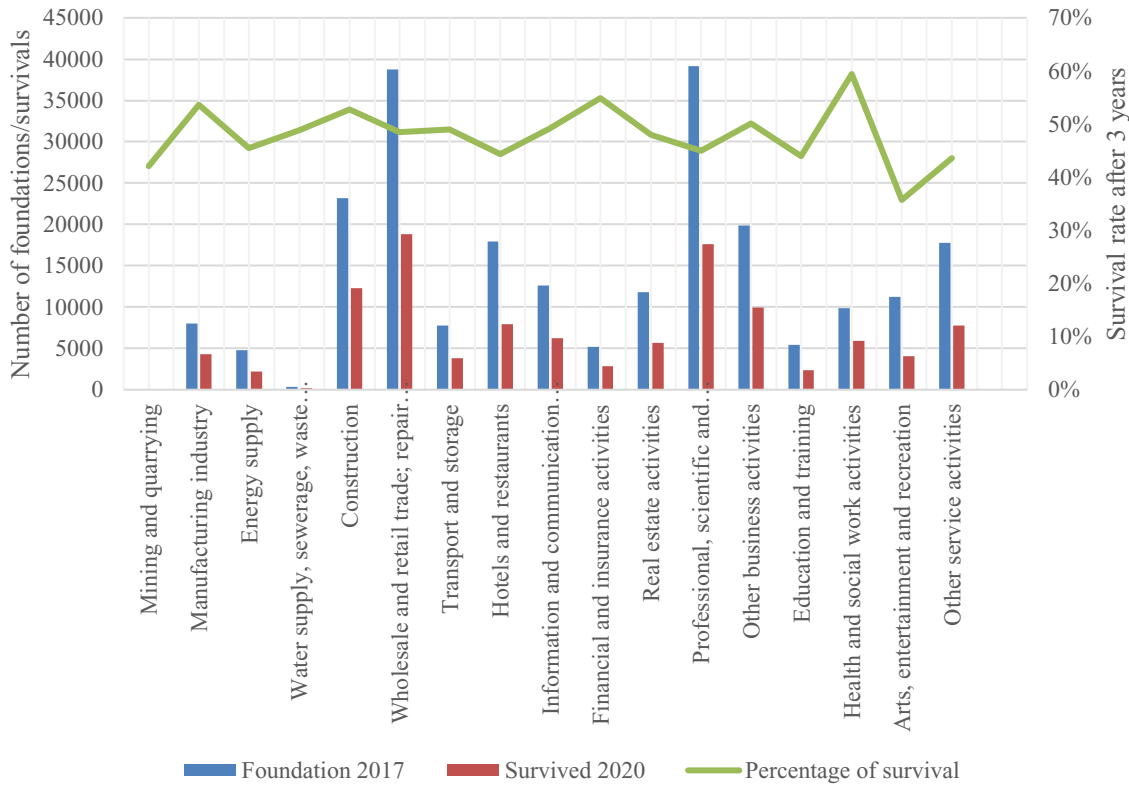


Figure 2 Company survival rate after 3 years by industry (Statistisches Bundesamt, 2023)

The overall company survival rate of German startup foundations is 48% after 3 years (Statistisches Bundesamt (Destatis), 2023). The distribution per economic section can be seen in *Figure 2*. When looking at reasons startups succeed, fail, or underperform in Germany, an often-mentioned obstacle is the overall risk-averse mentality of Germans. This, combined with a lack of positive sentiment coming from successful startups in Germany from the past, impedes many people in Germany from developing successful startups (Kunesch, 2022). A lot of startups leave the country for higher chances of follow-on investments in countries like the US or the UK (KfW, 2022a; Kunesch, 2022; Shafie et al., 2021). Also, migrating to a country like the US opens new international market opportunities for these startups. The limited domestic market in Germany can be a hindering factor for some in the long-term (KfW, 2022a).

German startups most commonly fail due to the following reasons according to KfW (2022b), a German state-owned investment and development bank: 61% of startup closures are due to financial risks, followed by the high level of bureaucracy in Germany (52%), the high burden on the family of the founder (48%), and only 42% fail from a lack of financing (KfW, 2022b).

Another perspective, more in line with overall failure reasons of startups, comes from Triebel et al., (2018). In a study from the German startup grant EXIST which helps academic startups for 1 year, 119 failures were analyzed. The most common source of failure was shortcomings associated with the team. Execution risk and insufficient marketing opportunities were mentioned as the second most common reason (Triebel et al., 2018). According to the Global Entrepreneurship Monitor from 2023, only 35% of Germans consider it easy to start a startup in Germany, while around 44% wouldn't contemplate starting a business since they think it might fail (Boutaleb, 2023). A study of the HHL Leipzig Graduate School of Management (2016) mentions further aspects which hinder Germany being a competitive player in the international startup market.

The lack of “failure culture”, where failure can be seen as something positive as well, entrepreneurship being critically eyed by the society, a general risk-averseness, and a tendency to prefer employment over founding a startup were the main obstacles discovered in the study. They also discovered that among founders, the view on the German startup landscape is predominantly positive. A country's cultural characteristics is a prevalent determinant in one's decision to become an entrepreneur and can influence performance and long-term survival of a startup (George, 2002; Sajjad & Aasim, 2012). Taking the first step into entrepreneurship can therefore be seen as a major obstacle for Germans and not necessarily the German startup ecosystem itself (Pinkwart et al., 2016). Building up on that, the lack of “*Anpackermentalität*”<sup>3</sup> and the widespread “*Klappt eh nicht*”<sup>4</sup> mentality in Germany inhibits the full potential of the German innovative force according to Roeding (2023), a German serial founder in the Silicon Valley. He also mentions that, for Germany, to become a leader in startup innovation, successful entrepreneurs and startup founders need to become role models and figureheads so that startups become a desired career for the broader society (Roeding, 2023).

When it comes to expectations, founders are looking for accelerated and simplified administrative processes, more extensive public funding for startups, legal adjustments which enable employee participation programs, expansion of federal VC investments, or support for the establishment of lighthouse incubators at universities to support startups from an early stage onwards (DSM, 2022).

---

<sup>3</sup> Translates to “hands-on mentality”

<sup>4</sup> Translates to „won't work anyway“

The foregoing findings will be discussed through expert interviews to determine their applicability in the current German startup environment. Additionally, we will examine whether there are further success and survival factors in Germany.

## **2.7. Personality traits and startups**

After examining the factors contributing to the success of startups and the overall startup ecosystem in Germany, it becomes evident that personality traits and mentality of the German society play a significant role. Therefore, the upcoming Chapter establishes a theoretical link between personality traits and startup intentions. Subsequently, a set of hypotheses will be formulated as the foundation for a survey aimed at testing these hypotheses within a subpopulation of the German society and a non-German comparative group.

Dependencies between startup intentions and personality traits is a well discussed field in research. Most commonly the correlations are explained by different dimensions of personality traits and to what extent the different dimensions have influence on the intentions of individuals to create a startup. Since the 1980s, the five-factor model (FFM) is one of the main classification systems of personality traits in psychology (Brandstätter, 2011; Costa & McCrae, 1992; John et al., 2008). This model also builds the base for the analysis on how startup activity can be influenced by personality traits. As it can be understood from the name, the FFM consists of five personality traits. The model is often also referred to as the OCEAN model, which is an acronym for openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Through a catalogue of 41 questions, a score on each of the 5 dimensions is determined. The five personality traits can be described as follows:

*Openness to experience* is a trait that describes someone “who is intellectually curious, imaginative, and creative; someone who seeks out new ideas and alternative values and aesthetic standards” (Zhao et al., 2010). People who score high on this dimension, tend to have more entrepreneurial intentions and are more likely to become successful entrepreneurs (Brandstätter, 2011; Zhao & Seibert, 2006).

Hypothesis 1: People who score high on openness to experience will more likely have intentions to create a startup. (H<sub>1</sub>)

*Conscientiousness* is a personality trait that “describes an individual’s level of achievement, work motivation, organization and planning, self-control, and acceptance of traditional norms, and virtue and responsibility towards others” (Zhao et al., 2010). Typically, entrepreneurs have

a high need for achievement and like work-related situations where they have control over the situation (Brandstätter, 2011; Zhao & Seibert, 2006; Zhao, 2010).

Hypothesis 2: People who score high on conscientiousness will more likely have intentions to create a startup. (H<sub>2</sub>)

A highly *extraverted* person is “gregarious, outgoing, warm, and friendly; (..) is energetic, active, assertive, and dominant in social situations; experiences more positive emotions and is optimistic and seeks excitement and stimulation” (Zhao et al., 2010). Since creating a startup can be seen as more exciting than traditional employment and the possibility to be a leader is greater, entrepreneurs are more likely to be extraverts (Brandstätter, 2011; Zhao & Seibert, 2006; Zhao, 2010).

Hypothesis 3: People who score high on extraversion will more likely have intentions to create a startup. (H<sub>3</sub>)

*Agreeableness* describes the personality dimension that assesses someone’s attitude and behavior towards other people. People can either be characterized as “trusting, altruistic, cooperative, and modest” or “manipulative, self-centered, suspicious, and ruthless.” Barrick et al., (2003) mention that people who score high on agreeableness tend to work in social and non-profit jobs where interpersonal contact is in focus. Whereas people who score low typically work in business and act for-profit.

Hypothesis 4: People who score low on agreeableness will more likely have intentions to create a startup. (H<sub>4</sub>)

Finally, *neuroticism*, which is often referred to as *emotional stability*, defines to what extend people can stay calm, stable, even-tempered, and hardy in certain situations (Zhao et al., 2010). Entrepreneurs are typically described as “hardy, optimistic, and steady in the face of social pressure” (Zhao et al., 2010). These characteristics can be described as high emotional stability.

Hypothesis 5: People who score high on emotional stability will more likely have intentions to create a startup. (H<sub>5</sub>)

In recent research regarding the influence of personality traits on entrepreneurial activity, a sixth, independent factor is often included: *risk propensity*. This factor describes the willingness of a person to take risks in different situations of one’s life (Nicholson et al., 2005; Rauch & Frese, 2007; Zhao et al., 2010). Some say it shall be included because it is not represented in

the FFM (Paunonen & Jackson, 1996) or it is a mixture of all five dimension and therefore needs special attention to be evaluated (Nicholson et al., 2005). Considering risk propensity is important since many entrepreneurial decisions and activities depend on the willingness of a founder to take risk or not and in which situations (Rauch & Frese, 2007).

Hypothesis 6: People who score high on risk propensity will more likely have intentions to create a startup. (H<sub>6</sub>)

The hypothesized will be tested in a survey of German and non-German participants to explore the influence of the different personality traits on startup intentions in Germany and to potentially find differences to the non-German sample.

### **3. Methodology**

This Chapter explains the research design and chosen methodology used in this work. Furthermore, it outlines how data was collected and analyzed to gain the desired insights to answer the RQ.

#### **3.1. Research Design**

To find out how startups in Germany can increase their survival probability, different research methods were used to answer the RQ. This thesis includes primary and secondary data collection. Primary data collection was conducted through semi-structured expert interviews and a survey while secondary data was collected through the previously presented literature. The findings of the literature review thereby were the basis for the set-up of the expert interviews and the survey. The interviews ought to challenge these previous findings and identify which factors are specifically relevant to the German startup environment.

#### **3.2. Data collection**

##### **3.2.1. Primary data collection – Expert Interviews**

Semi-structured expert interviews were used to gain qualitative insights (Hammarberg et al., 2016). A general guideline ensures comparable data from different interviews following a clear set of previously set instructions (Cohen D; Crabtree B, 2006). Overall, semi-structured expert interviews work best when interviewers have only one opportunity to speak to respondents (Rowley, 2012). A guideline was created based on the insights gathered in the literature review and overall prior knowledge of the topic. Since backgrounds of interview partners differed, the guideline was adapted accordingly. Interviewees either directly work/worked in a successful or failed startup, a venture capital fund or are industry experts from related industries in Germany.

This allowed a differentiated view on survivorship reasons of startups and their respective success factors in Germany.

The interview guideline was developed inductively based on the prior research within this work and questions were chosen based on insights of the literature review. It was adapted according to the interview partner and their respective background. In the beginning, introductory questions regarding background and startup involvement were asked, followed by questions on the overall startup landscape of Germany, success factors of startup from the respective perspective, influence of German mentality on the topic and finally, an outlook into the future. The full guideline can be found in the *Appendix 2*.

The experts were exclusively contacted through personal and professional networks and had a broad variety of backgrounds (*see Table 1*). The interviews were all conducted via Zoom and recorded. Since all experts were from the German startup ecosystem, the interviews were all held in German and then translated into and summarized in English (*see Appendix 4*). The results were thematically analyzed and then coded in line with the structure of the literature review to ensure comparability (Krippendorff, 2019).

#	Code	Current position, background, and experience
1	SF1	Co-Founder and Managing Director in early-stage (seed funded), B2B, end-of-life management and care venture with focus on strategic product development and fundraising
2	SF2	CEO and Founder of leading SaaS advertising solution worldwide managing > 1bn in adspend, 10+ years of experience in the field. Moreover, CEO and Founder of incubator for digital ventures with 11+ years of experience
3	SF3	CEO & Founder of luxury fashion e-commerce venture. Moreover, experience in early-stage investments from startup and VC perspective
4	SF4	Founder and Managing Partner of digital distribution solution for the private capital market. Over 12 years of experience in the startup industry
5	VC1	Founding Partner of early-stage venture capital firm with focus on active investments in digital B2B ventures, 8+ years of experience in VC and 20+ years of experience in investment banking
6	VC2	General Partner and Co-Founder of early-stage VC firm with focus on software and technology with ticket sizes of €2-8mio, 13+ years of experience in VC
7	VC3	Business Angel with focus on early-stage growth investments and technology and deep tech focus. Moreover, held many management positions in corporations in the past
8	VC4	Founding Partner of European VC-as-a-service firm with broad investment portfolio. Moreover, serial founder with several successful startups found and exited. More than 17 years of experience as investor and founder.
9	IE1	Partner in digital consulting practice and Managing Director in innovation & ventures practice of major international audit firm. Was Founder and CEO of corporate startup incubator, 19+ years of experience in the industry
10	IE2	CEO of corporate finance firm with focus on IPOs of nanocaps/growth companies. Moreover, background in innovation and digitalization consulting with over 8 years of experience

Table 1 Overview of interviewed experts

### 3.2.2. Primary data collection – Survey

In Chapter 2.7. empirically verifiable hypotheses regarding personality traits' impact on startup intentions were created. A survey was conducted to verify and test these. The survey sought to identify the impact of personality traits on startup intention for a German and a non-German

subsample. The questionnaire included questions on demographics, standardized questions to characterize personality traits and finally questions regarding one's attitude towards startups. In its original format, the FFM model is a collection of 41 questions each with a seven-point Likert scale determining scores on the different personality traits. For this work, a ten-question version (two for each dimension) was chosen for convenience reason while keeping the results meaningful (Gosling et al., 2003). Moreover, the questions regarding risk propensity were based on the work of Meertens & Lion (2008) and consisted of seven questions with seven-point Likert scales. Introductory questions, questions on demographics and startup behavior were based on research standard and insights gained in the literature review. The questionnaire can be found in *Appendix 2*. Figure 3 shows an overview of the hypotheses created and their expected influence on startup founding intentions.

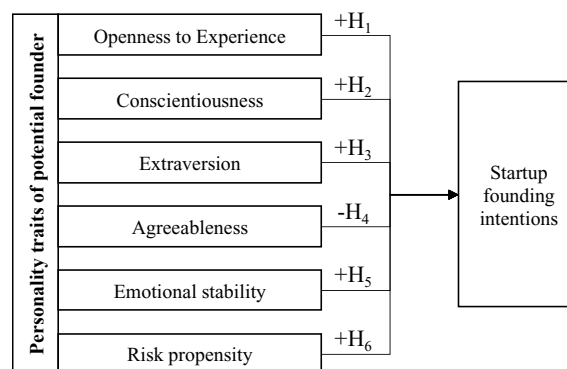


Figure 3 Hypotheses tree

### 3.2.3. Secondary data collection

To build the basis for the primary data collection and analysis of findings, secondary data was collected through a thorough literature review, relying on academic articles, statistical data, governmental reports, articles from top management journals, consultancy reports and company websites.

## 4. Analysis and discussion

The survey is analyzed and discussed in Chapter 4.1 and the expert interviews in Chapter 4.2.

### 4.1. Impact factors on startup intention

#### 4.1.1. Demographics

Of the total of 414 respondents, the distribution between male (n=205) and female (n=203) is almost equal. In addition, three respondents identified as non-binary, two preferred to self-describe and one respondent preferred not to say their gender.

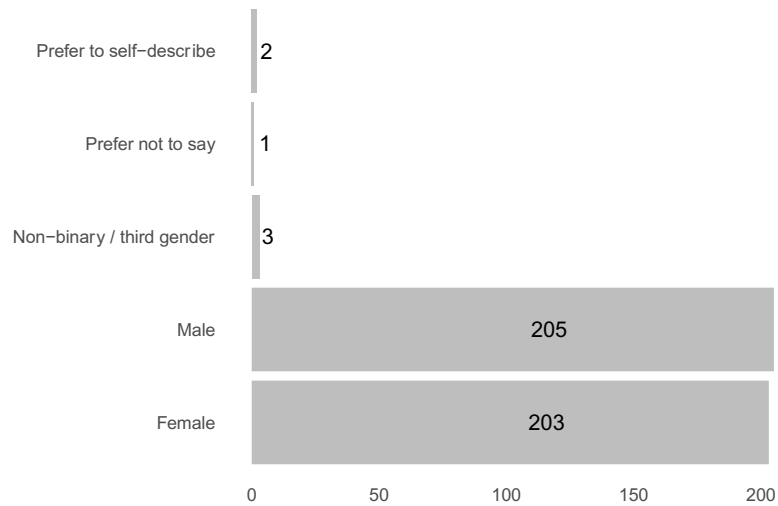


Figure 4 Gender distribution (n=414)

51.3% of participants were from Germany, while 48.7% were from the US. The countries were chosen to ensure comparability of the results.

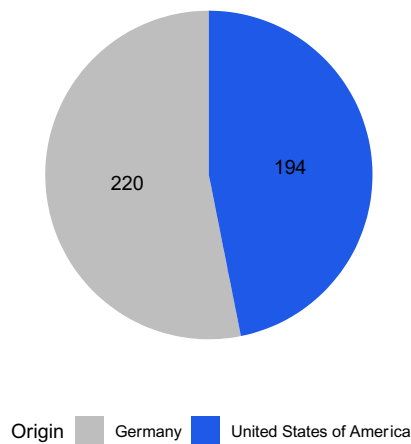


Figure 5 Origin distribution (n=414)

Regarding age distribution, the majority of respondents were 44 years and younger (64.3%) while the biggest group was between 25-34 years old (32.0%). With increasing age, the number of participants decreased (*see Figure 6*).

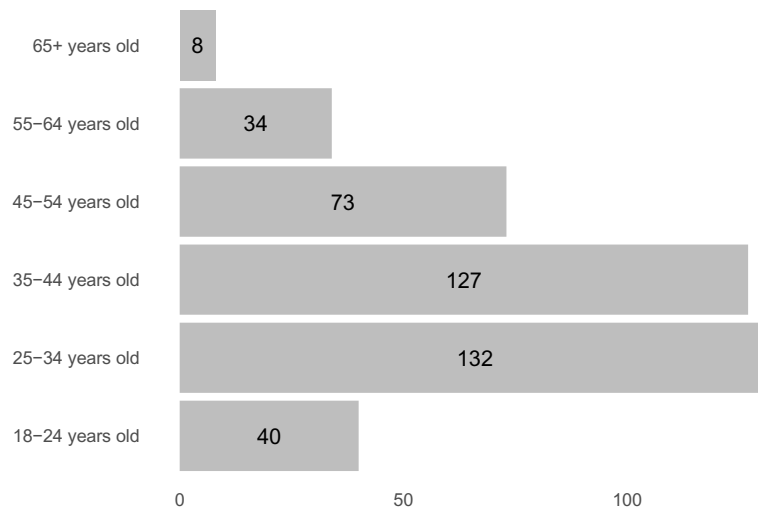


Figure 6 Age distribution (n=414)

Most respondents identified as White or Caucasian (82.6%). This was followed by 6.2% who identified as Black or African American, 4.1% Asian and 1.7% American Indian/Native American or Alaska Native. 5.5% were of another race or preferred not to say theirs (*see Figure 7*).

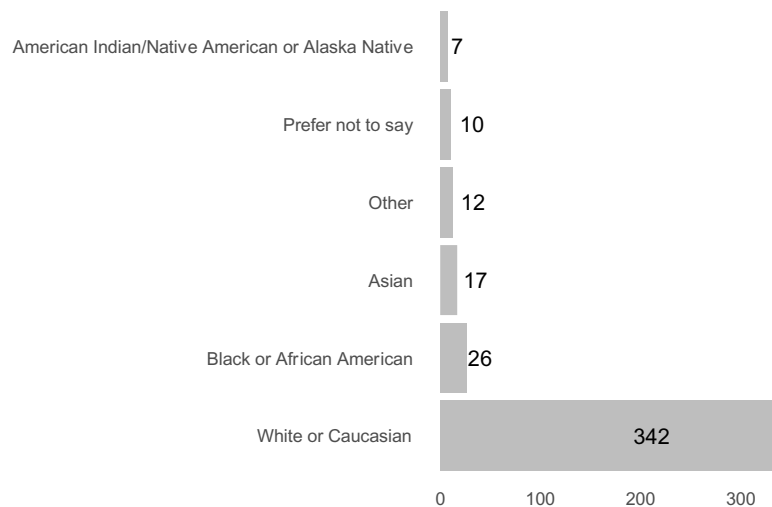


Figure 7 Race distribution (n=414)

More than half of the population had at least a bachelor's degree, while a significant number also has a master's degree. Apart from 3.4% of participants who had less than a high school degree, all others had at least a high school degree, while some completed vocational training. Regarding income, most participants indicated an annual income before taxes of \$25,000-\$49,999, closely followed \$50,000-\$99,999. Around 25% of participants earned below \$25,000 while only 10.9% of participants earned more than \$100,000, as can be seen in *Figure 8*.

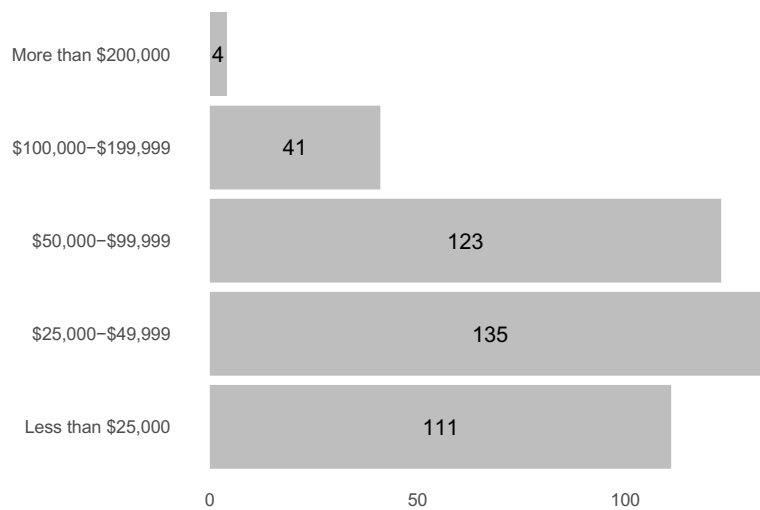


Figure 8 Income distribution (n=414)

Most respondents indicated they had neutral political orientations, while the average slightly shifted towards liberal attitudes. 26.5% stated a somewhat liberal orientation, with 7.0% being extremely liberal. On the other hand, 14.3% were politically somewhat conservative. The lowest part stated an extremely conservative political orientation (3.1%).

#### 4.1.1.1. Personal startup behavior

The questions regarding startup behavior were asked first to get an idea of the views on startups in the respective countries and then to bridge the gap to personality traits and possible connections between those aspects.

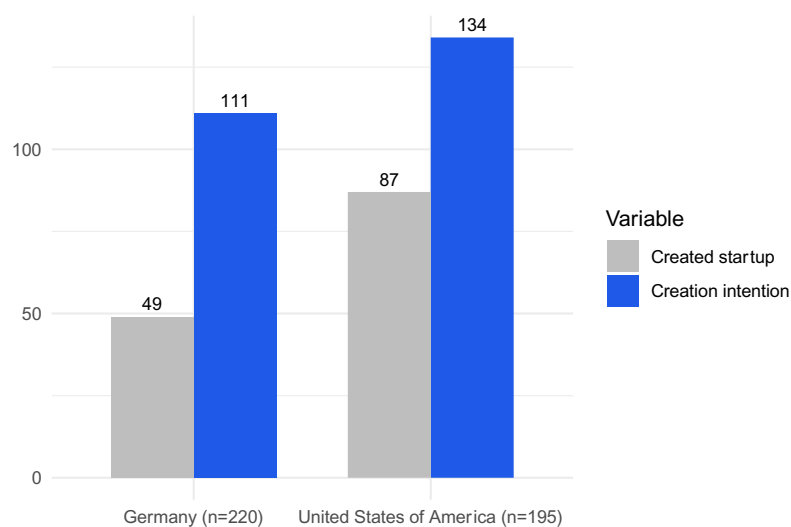


Figure 9 Number of people who created startup or have intention by Origin

As can be seen in *Figure 9*, of the 220 German participants, 49 indicated that they had created a startup in the past, while the percentage of such people in the US was almost double (87 out of 195). Meanwhile, half of the German participants (111 out of 220) had intentions to create a startup in the future. This number was higher in the US, where 68.8% stated that they wanted to create a startup in the future.

Regarding perceived skills and knowledge to create a startup, the share of people in the US (74.2%) was higher than Germany (66.8%). No relevant differences in startup education in school or university could be observed between the two countries. In both countries, around 40% of the participants stated that they received such education. Another notable difference could be seen when looking at the feeling that creating a startup is easy in one's country. In Germany, only 44.5% of respondents stated that they feel that startup creation is easy. With 63.9%, the proportion in the US was bigger. Most people in both countries stated that they know a startup founder personally, while the share in the US was slightly higher again (88.7% in the US vs. 78.2% in Germany). Lastly, in the US a higher percentage of respondents (67.0%) indicated that they drew inspiration from existing founders in their country to potentially start their own business. The share in Germany was only around 50%.

The results of the respective startup behaviors are summarized in *Table 2*, where notable differences are written in bold type.

	Germany (n= 220)		United States of America (n=194)	
	Yes	No	Yes	No
Created a startup in the past	22.3%	77.7%	<b>44.3%</b>	55.7%
Intention to create a startup in the future	50.5%	49.5%	<b>68.8%</b>	31.4%
Skills and knowledge to create a startup	66.8%	33.2%	<b>74.2%</b>	25.8%
Received education to create a startup	39.1%	60.9%	38.7%	61.3%
Feeling that creating a startup in country is easy	44.5%	55.5%	<b>63.9%</b>	36.1%
Know a startup founder personally	78.2%	21.8%	<b>88.7%</b>	11.3%
Can draw inspiration from founders in my country	51.8%	48.2%	<b>67.0%</b>	33.0%

Table 2 Distribution of startup behaviour by origin in %

#### 4.1.1.2. Personality traits

As displayed in *Figure 10* below, participants showed different extends of personality traits. Emerging from the 7-point Likert scale in the survey, the maximum values per trait was seven, which represented complete agreement with the statements. The statements can be retrieved in *Appendix 1*.

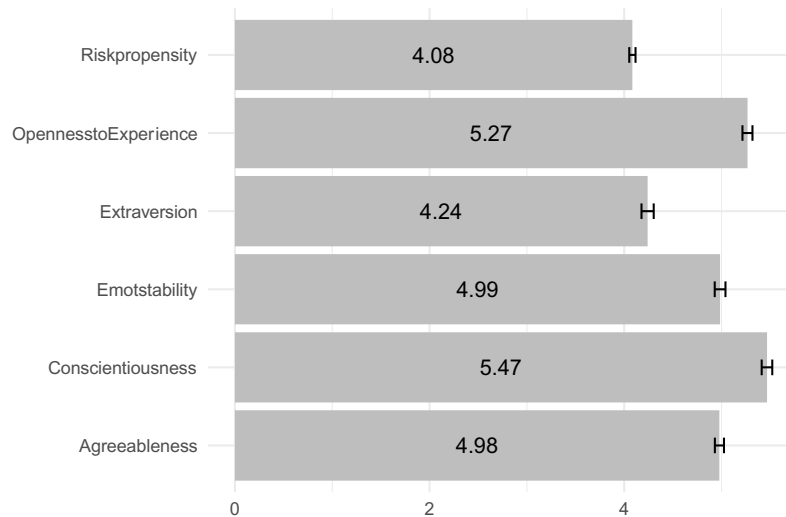


Figure 10 Distribution of personality traits

On average, respondents showed a slightly higher than average *Risk Propensity* with 4.08 while exhibiting a relatively high level of *Openness to Experience* (average: 5.27). With an average score of 4.24, participants were not prominently extraverted, maintaining a balance between *Extraversion* and introversion. The scores on *Emotional Stability* indicated that participants were emotionally stable (average: 4.99). *Conscientiousness* could be seen as a prominent trait among the survey respondents with an average score of 5.47. Finally, scores on *Agreeableness* showed that participants leaned towards being agreeable and considerate individuals.

Overall, the scores of the collected answered showed similarities with the scores collected in the survey conducted by Gosling et al. (2003), the survey on which the questions regarding personality traits asked in the survey were based.

#### 4.1.2. Regression analysis

Linear regression was used to determine correlations between the previous mentioned variables (demographics, startup behavior, and personality traits) and the startup intention of survey participants. The hypotheses were based on our research and on the literature discussed in Chapter 2. The regression is displayed in *Table 3* and will be discussed subsequently.

Dependent variable:	
Has creation intention	
German national	0.088 (0.064)
Created startup before	0.052 (0.047)
Has skills to create	0.322*** (0.047)
Can draw inspiration	0.472*** (0.065)
Entrepreneurial act. in family	0.085** (0.042)
High Openness to experience	0.103** (0.043)
High Conscientiousness	-0.061 (0.047)
High Extraversion	-0.032 (0.039)
Low Agreeableness	0.018 (0.095)
High Emotional stability	-0.039 (0.040)
High Risk propensity	0.111** (0.053)
Is over 45 years old	-0.150*** (0.043)
Male	-0.094** (0.041)
German * Inspiration	-0.194** (0.080)
Constant	0.037 (0.080)
Observations	414
R2	0.445
Adjusted R2	0.425

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 3 Regression analysis

In contrast to literature and predominant perception in the industry itself (Boutaleb, 2023; Pinkwart et al., 2016; Roeding, 2023), German people do not have significantly lower intentions to create startups compared to the US. Having founded a startup before had no significant influence on future startup intentions in this sample, which was partially different from the understanding of founders sometimes being serial founders. In that case, entrepreneurs jumped from venture to venture and created several startups successively (Gründerplattform, 2023). When someone indicated having skills and knowledge to create a startup, the intention to create one was statistically significantly higher on a 0.01 significance level ( $p < 0.01$ ). Furthermore, the possibility to draw inspiration from existing founders to create a startup had a strong positive effect on the creation intentions of an individual. This was statistically significant on a 1% level. But, in line with Roeding (2023), Germans had a significantly lower startup intention when able to pay attention to existing founders and their stories, as can be seen in the interaction term *German \* Inspiration* (significance level:  $p < 0.05$ ). When it comes to past entrepreneurial activity in the family, people showed significantly higher startup intentions when they had a family history of startup activity. This was statistically significant on a 5% significance level.

In the following section, the hypotheses made in Chapter 2.7 will be discussed. Being open to new experiences had a statistically significant ( $p < 0.05$ ) positive influence on startup intention. This is in line with Brandstätter, 2011; Zhao & Seibert, 2006). Therefore, H<sub>1</sub> is accepted. In line with Rauch and Freese (2007), high risk-taking propensity also showed a significantly higher startup intention. Hence, people seeking risk were more likely to have intentions to create a startup in the future on a 5% significance level which leads to H<sub>6</sub> being accepted as well. Regarding H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub> and H<sub>5</sub> no significant correlations could be observed. That translates into no significant influences of *High Conscientiousness*, *High Extraversion*, *Low Agreeableness*, and *High Emotional stability* for startup intention. Interacting those variables with *German national* didn't increase significance either. H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub> and H<sub>5</sub> are therefore rejected.

Moreover, we observed that men show statistically significant lower startup intentions than women with a significance level of 5%. This insight contrasts with established understandings of gender relative to entrepreneurial intentions as seen in Abbasianchavari & Block (2022), Grilo & Irigoyen (2006) and Wilson et al. (2007). For people over the age of 45 we can conclude that startup intentions were significantly lower than intentions for people younger ( $p < 0.01$ ).

Overall, significant insights into startup intentions could be drawn from the foregoing regression, however, the low R-squared values indicated that influence on startup intentions was more complex and only 44.5% of variance could be explained by the chosen variables. We could thus conclude that human behavior in relation to startup intentions is more multifaceted than presented in this case.

The following analysis of the expert interviews will further explore the startup world of Germany and try to find other factors influencing startup intention and finally, startup success.

#### **4.2. State of startup Germany and success factors for the future**

Expert interviews were conducted to gain further insights into the German startup industry. Specifically, we sought to identify success factors, better understand the state of “Startup Germany” and see what needs to be done in the future to make Germany a successful startup location. Content was analyzed via thematic analysis and open coding (see Chapter 3.2.2.). Overall, the results were considered with a triangulation approach drawing upon the literature review, quantitative results from the survey, and qualitative results from the interviews (Sekaran & Bougie, 2016). Some deductive results from the literature review were confirmed, but the interviews also brought up new inductive insights. In the subsequent Chapters the order of mentioned aspects represents the frequency of mentions by the experts.

### **4.2.1. Success factors for German startups**

Overall, we found that most success factors mentioned by the expert are also represented in the literature review, even though some interesting new insights were brought up. The importance of success factors varied between experts, which is why we have complemented the success factors with quotes from the experts.

#### **4.2.1.1. Financing as main survivorship factor**

As the most important and obvious factor determining survivorship, all experts unanimously mentioned external financing – the funding on which most startups rely in their early stages to fund their operations and prevent going bust. Since most startups are not profitable initially, they rely on external financial support (SF1). During this phase, startups need the ability and quality to convince investors to believe in their product or service to continue investing in the venture (VC2). In later stages capital is mainly needed for growth and expansion. External capital can come in many different forms. The most common are VC investments from VC funds or business angels, governmental initiatives like loans or grants, corporate investors, investments from pension funds, banks, or other asset managers (Dealroom.co, 2020). A strategy is needed to determine which form of financing makes the most sense at all stages of the startup. This also involves securing a broad network to access the desired capital when needed (VC3). Overall, the success factor of financing is way more complex and will be further elaborated in Chapter 4.2.3. when Germany as startup location and its future is discussed.

#### **4.2.1.2. Internal success factors**

From literature (see Chapter 2.4.1.), the team emerged as the most important and most mentioned internal success factor for a startup. In line with this, the experts were unanimous that the team is a key element for startup success. A solid team involves people with an entrepreneurial mindset (VC1, VC2, SF2, SF3, SF4, IE1) which brings great talent to the company. Top talent is nevertheless very difficult for young startups to acquire. Since startups in their early stages often have financial constraints, the top talent they need to grow their business can't always be accessed because these individuals might have better options elsewhere or work at large companies where salaries are more competitive (VC3). But no team can achieve its goals when the founder or the founder team does not “*act as leaders of the entire team*” (SF2) with experience in the industry of the product (SF2, SF4, VC1, VC2, VC3, IE1, IE2). A perfect founding team has technological, commercial and sales experience to holistically develop the startup (VC3). Moreover, the chances of startup success are higher,

when the founder has founded startups previously and understands what it takes to build a successful business. In line with literature (see Chapter 2.5.), a common reason for failure of young startups is founding team alienation (SF4), which underlines the importance of a coherent and homogenous founding team. Entrepreneurial spirit and passion of the founder and the entire team around him are important as was mentioned by several experts (SF2, SF3, VC2, VC4). “*Ambitious dreaming*” (VC2) and standing up after setbacks are examples of what these factors include. Founders typically tend to stick to their idea and try to overcome all obstacles when they are following their passion (VC4).

Furthermore, overall and early market fit of the product is important (SF1, SF2, VC1, VC2, VC3, IE1, IE2). The newly developed product must serve a real need in society (SF2) and solve an existing problem (SF1, VC3). The possible commercialization of the product in the market is one of the main drivers for investors to invest in a startup. In addition, the addressable market needs to be of a certain size, so that investors can realize their desired returns. Ideally, a product isn't limited to a domestic market and can be distributed internationally. Therefore, startups need to ensure that their product is placed in a promising market (SF1, SF2, SF4, VC1, VC2, VC3, VC4). People or other companies, depending on the business model, need to be willing to pay for a product to make it successful (VC3). Additionally, the company should not be positioning itself in a market which is saturated and where competition is acute (SF2, VC1). Thus, startups should secure their position through patents early, so that competition will have a harder time to compete (IE1). To complement a good market fit, since oftentimes startups don't have a developed customer base, startups need sales competencies to turn the idea into revenues (VC1, VC2, VC3)

Also often mentioned was the difference between startups and traditional corporates with respect to culture within the firm. The experts framed this as a major factor for success (SF2, SF3, SF4, VC2, IE1). A robust culture retains qualified employees (SF2) and promotes the motivation to work to make the product better. To make sure culture is lived by the employees, it must be promoted and checked repeatedly (SF4).

Regarding motivation, another factor conducting success is employee stock option plans (ESOP). They are often used in addition to the base salary as part of the compensation package, to make the startup more attractive for employees and potential new talent (SF1). Some experts mentioned ESOPs as a main success factor for German startups to ensure long-term motivation for employees and especially for management teams (SF1, SF4, VC1, VC3, VC4, IE1). This

was reinforced by IE1, who even said that “*hyperscale growth was only possible, when you turn those affected to shareholders*”.

#### **4.2.1.3. External success factors**

As already mentioned in Chapter 4.2.1.1., the team and its talent are main drivers for startup success. That is why the access to talent for a startup from its environment is key, something also mentioned unanimously by the experts. This can be achieved by locating the company close to renowned universities or in cities which have flourishing startup ecosystems. Additionally, talent can be attracted with enticing working and compensation conditions.

Furthermore, the timing of a startup’s creation is key for its success. This was also indirectly mentioned by all experts unanimously. The dimension of timing varies. On the one hand, timing from a macroeconomic perspective is essential. This includes aspects like access to financing, which is more difficult and riskier in challenging times or lower sales since the purchasing power of consumers and businesses in most cases are lower than normal. At the same time, startups in certain industries can benefit from challenging economic times when the product serves a specific need during that time. On the other hand, timing from the market perspective needs to be right. The consumers and customers need to be ready for the product for it to achieve substantial growth. Examples mentioned from expert VC4 were, that i.e., the most common social media networks of today were founded in the 2000s while the largest e-commerce brands were found in the 1990s. This exemplifies that the timing needs to suit the overall market environment.

From the literature (see Chapter 2.4.1.) it was already evident that the use of allies and network can be of benefit for startup founders for numerous reasons. Startup ecosystems are a useful way of enabling those benefits for startup founders. They are defined by as a “cluster of startups and related entities that draw from a shared pool of resources and generally reside within a 100km radius” (Startup Genome, 2023). For some industries, ecosystems aren’t linked to a certain location but rather a topic or technological field (VC3, VC4). Several experts mentioned participation and the access to a flourishing startup ecosystem as a main success factor for startups (SF1, SF3, SF4, VC3, VC4). But there are diverse reasons for participating in an ecosystem. These include are access to external capital, network, events, sometimes even office space and access to talent. Such ecosystems can also be complemented by university incubators.

Finally, political, and fiscal circumstances of the country a startup is in are factors for success. Again, this aspect was mentioned by every expert in some way during the interviews. From a

political perspective, as mentioned in Chapter 4.2.1.1., governmental subsidies, grants and investments can hugely benefit startups in all stages of their development. “*Political stability*” (SF4) and “*legal certainty*” (VC4) within a good and steady legal framework as additional aspects where the countries’ politics can indirectly support its startups. Overall, the government needs to be interested in developing the startup landscape of the specific country (VC1). A significant lever is simplified bureaucracy for startups as well, so that they can focus on their own business operations. The government also influences the ease at which one can launch a startup. It is important to mention how taxation for startups is two-sided. On one hand, the startup needs good funding circumstances, especially in early phases to grow the business sustainably (SF2, SF3, SF4, VC1, VC4). On the other hand, investors need good conditions as well (E.g., when exiting an investment) (VC4). As mentioned in Chapter 4.2.1.2., when countries differentiate themselves, they become attractive for international startups to relocate to.

#### **4.2.2. Current state of “Startup Germany”**

During the interviews, the experts were asked to describe the current state of startup Germany without guiding them towards an evaluative answer. The outcomes of these questions are summarized in the two subsequent Chapters.

##### **4.2.2.1. Strengths of the German startup environment**

As mentioned in Chapter 4.2.1.2. and 4.2.1.3., talent and access to talent are key success factors of any startup. Due to highest quality of university education, German startups have access to quality talent from an academic standpoint (SF1, SF4, VC1, VC2, VC3, VC4, IE1, IE2). Especially in sciences like physics, chemics, biology or natural sciences German universities offer education on the highest level. These universities also research and develop cutting-edge technologies on which many businesses can be build up on (SF3, SF4, VC1, VC2, VC3, VC4, IE2). Moreover, the quality of German technologies also attracts international investors (SF4).

In addition, Germany with its long industrial history and many industrial companies, offers opportunities where startups can directly develop technologies with industrial partners while building on long existing qualities (VC3). Most of the top research universities in Germany developed their own startup incubators to support their students and their potential ventures. The most frequently mentioned one being the UnternehmerTUM of the Technical University Munich (SF2, VC4). These incubators are often part of well-developed ecosystems in Germany. Experts mentioned the development of strong startup ecosystems in Germany in recent years

(SF1, SF3, SF4, VC2, VC4, IE1) that are helping German startups to flourish. Overall, Berlin and Munich were mentioned by most experts as the best ecosystems in Germany. Such urban startup ecosystems and their success stories also led to a mental shift of the younger generation (>50 years) to take more risks and see a career in the startup world as an alternative to a more traditional career in a large corporation (SF2, IE2). Our regression analysis in Chapter 4.1.2. delivered the same results, as startups intention were higher with respondents younger than 50 years of age.

Furthermore, Germany has a broad portfolio of very successful startups. Those success stories can build the foundation and serve as inspiration for others to follow their footsteps. It shows that building successful companies is possible in Germany (SF2, VC1, VC2, VC3, VC4, IE1). Large successful companies play a role in spawning startups when former employees learn the tools of a successful startup and decide to go their own way (VC2, IE1). Startups have thus “*developed a market in themselves*” (IE1). But this not only inspires potential founders to start a business in Germany or relocate there, but also shows international investors that German startups have the chance to develop into large, successful companies or even unicorns (VC2).

Moreover, Germany has a strong political and legal stability (SF4, VC4). According to the World Justice Project, Germany sits on the 6<sup>th</sup> place of 140 in their Rule of law index which evaluates respective domestic jurisdiction based on eight factors (World Justice Project, 2022). This ensures that operations and business of startups are secure.

Finally, Germany has a large pool of investors willing to back early-stage startups. Especially in the pre-seed and seed phase, German startups can expect to receive external VC financing from German investors (SF4, VC1, VC4), if their venture ticks all relevant boxes (see Chapter 4.2.1.). Adding to this, some experts mentioned the existence of good German and/or European startup funding programs which provide easy capital for young startups (SF3, VC4, IE2). However, access to these programs and overall setup is improvable (VC4).

Overall, Germany managed to create a “fertile ground” for startups, while all the experts also mentioned several negative points such as that Germany lags other countries and needs improvements. These aspects are discussed in the two subsequent Chapters.

#### **4.2.2.2. Weaknesses of German startup environment**

The aspect most mentioned by the experts was the lack of political efforts and financial support by the government in Germany (SF1, SF2, SF3, SF4, VC1, VC3, VC4, IE1). The following

stand out: the tax situation for startups in Germany is not ideal. On the one hand, startups have the same tax conditions as “non-startup” companies, which sometimes leads to difficulties in early stages of startups where they need every part of their capital (SF2, SF3). On the other hand, ESOPs are taxed unfavorable for startups employees which hinders startups from attracting new talent (SF1, SF4, VC1, VC4, IE1). As employees receive stock option, under the German fiscal law, employees must pay taxes on that income. But until the startup is sold or goes public, employees can’t liquidate their stock options. That phenomenon is also referred to as “dry income”. On a ranking from “Not Optional”, an initiative founded by Index Ventures alongside Europe’s leading entrepreneurs, Germany ranks last out of 24 (including the most influential startup countries) regarding stock option policy attractiveness (Not Optional, 2023)<sup>5</sup>.

In addition, financial support structures for startups in Germany and Europe were mentioned as being insufficient. Financial initiatives or grants are very difficult to get (SF2, SF3) or often tied to certain thematic fields (IE2). Most of the time if a startup is receiving governmental money, it is too little for them to survive without collecting additional support. Some experts went so far as to say that “*it seems that Germany had no interest in startups*” (VC3), especially by mentioning that “*there are too few initiatives to subsidize startups*” (VC3). The process for applying for support initiatives is too complicated and poorly implemented, according to SF2. As mentioned in Chapter 4.2.2.1., some experts expressed skepticism that good programs exist.

Moreover, experts criticized the lack of inflow of qualified workers to Germany which can help German startups to thrive in the future (SF2, VC1).

Furthermore, the general German society lacks entrepreneurial spirit (SF1, SF2, SF3, SF4, VC2, VC3, IE1, IE2). The expert group of startup founders in particular mentioned that even though on paper applicants presented as major talent, to some degree individuals lack motivation or belief in themselves. In the earliest stages of a startup, motivated employees should be willing to go the extra mile to build the company up, which is more challenging than joining in later stages (SF3). From a VC perspective, startup founders sometime lack this spirit as well. When creating a new product, the vision of German founders tends to be too conservative while lacking imagination where their business could end up. “*Dreaming big*” is what VC2 often misses from startup founders as a VC investor. However, the German market also has its limits, and the scalability of business depends very much on the product itself. When

---

<sup>5</sup> However, it should be noted that at the time of writing this thesis a new law is being discussed in Germany, which should improve the issue significantly (Gründerszene, 2023) (SF4, VC3).

products are made for the German market, growth can be limited. The market is “*too large to die, but too small to live*” (VC4). That is why most VC funds focus on technology-based solution which have the potential to be scaled internationally. Additionally, founders in Germany are always backed by a social system where failures won’t necessarily lead to personal ruin. Deciding on whether one should create a startup is often based on opportunity costs, because most founders could have chosen other career paths as well (SF4, VC3, VC4). One could argue that this lack for need slows entrepreneurial spirit and therefore the growth of startups in Germany.

Beyond the fact that it is difficult for startups to receive grants and noting the unfavorable access to ESOPs, Germany has long and difficult bureaucratic processes and procedures what often hinder German startups. This either relates to the amount of bureaucracy needed for certain activities (VC1) or the difficulty of dealing with bureaucratic processes (SF2, IE2). On the OECD Digital Government Index, Germany is among the last places regarding the use of digital technologies by the government (OECD, 2019). When bureaucratic processes have not been digitalized, this makes certain processes difficult. VC4 added, that when German startups internationalize or receive VC investments from abroad, the notary requirements of German law make it time-consuming to make organizational changes to company structures to accommodate foreign investors, which is annoying and a hindrance (VC4).

The only opportunity for startups to develop and scale up and later even become unicorns is to receive larger funding rounds after initial seed investments. As mentioned, investing in early rounds is well-established in Germany and there is a large cohort of investors with sizeable investments being made by German VCs. But the German ecosystem lacks experienced VCs when it comes to the later growth stages (SF4, VC1, VC4, IE1, IE2). The reasons mentioned by the experts varied. Investors in Germany are too risk averse when it comes to larger investment slugs, while some entities lack financial due diligence knowledge for making investments of this size (VC2). This then leads to startups either leaving Germany (IE2) or receiving financing from international investors. According to dealroom.co, the overall share of domestic VC invested in German startups has declined since 2015 while German VCs only accounted for ~15% of investments in rounds larger than €50m (Dealroom.co, 2020). Overall, Germans tend not to funnel a portion of their wealth into the startup ecosystem (VC4). This is especially evidenced in the amounts German corporate venture institutions invest in domestic startups. Even though German corporate venture investors are the most active in Europe, most of the capital deployed goes to innovations outside of Germany (Dealroom.co, 2020).

These weaknesses identified in the German startup landscape should be the incentive to bring about change in “Startup Germany”. The following Chapter will identify suggestions and ideas of the experts on how this can be achieved.

### **4.2.3. The future of “Startup Germany”**

The experts saw the greatest need for action being in political support and changing the political conditions for startups in Germany. The government needs to develop a sincere interest in helping startups grow (VC1). As previously discussed, the German government must adapt the fiscal conditions for startups to make them competitive from the earliest stage on. Suggestions included deferring certain fiscal payments so that startups have better conditions in their early stages where financial stability is still precarious (SF2). Additionally, conditions for ESOPs need reform (SF1, SF4, VC1, VC4, IE1) for startups to be able to attract new talent long-term and to solve the “dry income”-problem (VC1). Furthermore, bureaucratic processes must be simplified and, above all, digitalized (SF1, IE2). Such adjustments would help startups to concentrate on their actual work without wasting time on non-value-adding activities. However, it should be noted that this is a general problem in Germany, which is not unique to startups, but reforms would have a significant effect on the startup sector.

Bureaucratic issues also need to be solved at universities where researchers often have difficulties commercializing their research. The high quality of scientific research in Germany cannot easily be transformed into monetizable ventures based on a business model (VC3, VC4). This technological potential must be able to form the basis for many startups, otherwise far too much innovation and economic value is lost (IE2). To this end, processes must be created to enable scientists to transfer their intellectual property into businesses in a meaningful way (IE2). Universities could offer researchers standardized contractual models on how the commercialization of their product can be realized (VC4). Unfortunately, nowadays, the lack of such processes hinders many from starting their own businesses based on their research, since the IP belongs to the university (VC4, IE2). The business community must also be more involved in this process by collaborating better with universities.

The most important political action requested by the experts was for more German and European financial initiatives to fund startups. This could be improved by enabling better processes for funneling money into the startup ecosystem (VC4) or by creating founder funds. Such funds can be set up privately (E.g., through FinTechs) or publicly through governmental initiatives. Relevant high-tech fields in Germany must be able to strengthen investments in

startups and not only existing industrial companies (VC3). Part of the flow of money into the German startup ecosystem must also come from corporate venture investments, which currently still invest too much of their innovation budgets internally or internationally (Dealroom.co, 2020). However, this mindset shift must not only happen on the investor side, but also on the buyer side. Large German companies must manage to become customers of startups to support their growth (SF4, VC4, IE2). Here, however, bureaucratic hurdles come into play again, since, for example, the works council must always agree to software launches in German companies (VC4). This often enormously slows down the introduction of smaller German software companies, since well-known international companies are often waved through more quickly. The increased productivity being missed should serve as a motivation for politicians to remove bureaucratic hurdles. Overall, political incentives and processes must be created to enable companies and the state to become customers of startups. After all, supporting startups as customers and not just as investors is a major step in the further development of the German startup ecosystem (SF4, VC4, IE2).

Success stories of German startups must also receive more attention in politics and society. As mentioned in the previous Chapters, this has an impact on potential startups by serving as an inspiration as well as an influence on investors, who can see the potential of German startups through success stories (VC2). In addition, startups can increasingly develop into attractive employers for young talent (VC4). There should be greater recognitions via awards for successful startups as well as political promotions (VC3). As already mentioned in Chapter 4.1.2, the possibility to draw inspiration from success stories also increases the intention of people to create a startup according to our survey.

## 5. Conclusion

This thesis investigated the success factors of startups in Germany and their future. The work was built on the research question: *Are there particularities about the German startup environment and culture that enable or promote startup survival; and what will secure and enable success for German startups?* To answer this question, we conducted literature review regarding success factors of startups and the overall startup situation in Germany, quantitative analysis following a survey, and finally we conducted semi-structured expert interviews to gain qualitative insights.

Academic literature regarding startup success factors has shown that success factors can be divided into three categories. The first one being internal success factors which can be directly influenced by the founders and its team. Most important aspects to mention here were the experience of the founder in the field, the overall talent a startup can employ as a team, the culture in the firm which keeps the motivation of employees high and last the quality of the product which needs a sustainable product-market fit. Regarding external success factors, startups need good access to talent and ensure the timing of the venture is right. Lastly, startups must be able to secure enough financing to sustain and grow their operations. Even though the success factors have different degrees of importance, sometimes missing only one of those success factors can lead to the failure of the startup. The literature characterizes Germans as having relatively risk-averse mentality, a lack of positive role models, and limited domestic market opportunities. Financial risk and bureaucracy are significant obstacles, leading some startups to seek opportunities abroad. Furthermore, we shed light on personality traits, including *openness to experience, conscientiousness, extraversion, agreeableness, emotional stability, and risk propensity*, which can influence entrepreneurial intentions.

The survey results were used to confirm the hypotheses regarding personality traits and furthermore the influence of personal startup behavior and demographics on startup intention. The survey showed that people who claim to have the skills to create a startup have a higher intention to create one. This effect is lower for German participants. In addition, participants indicated that if they felt they could draw inspiration from already successful startups, they would also have higher intentions to create a startup. Finally, it was evident that participants who had entrepreneurial activity in their family also had higher intentions to create a startup themselves. The fact that German people have lower startup intentions than US citizens was not supported by the survey, contradicting the view of literature and the media. Regarding personality traits, only a high *openness to experience* and a high *risk propensity* increases

startup intentions. Regarding other personality traits, no significant influences were identified. From a demographic perspective, people over the age of 45 showed lower startup intention as well as male respondents compared to female ones, what is contrary to the understanding in society.

The qualitative research via expert interviews further detailed success factors for startups and bridged the gap to the situation in Germany and what needs to be changed for “Startup Germany” to thrive. Experienced founders with technological, commercial, and sales competencies need to be complemented by a motivated team with an entrepreneurial mindset to create a successful startup. The product they develop needs to be compelling and needs a good product-market fit. All this needs to be done while living a supportive and motivating culture within the firm to retain quality employees and thereby enhance the product. Those employees need to become shareholders at some point in time to enable growth and ensure their motivation and retention. Participation in a thriving startup ecosystem enables startups to network, facilitate access to capital, and attract young talent. Overall access to talent is a key success factors for startups, especially in early stages where the influence of each employee is higher. Furthermore, the timing of when a startup enters the market is important. Both from a macroeconomic and a product-market fit perspective. Potential customers need to be able and willing to pay for the product. Fiscal and political support from the government for startups in Germany is another success factor for playing a relevant role in the internationally competitive market.

For a successful future, reforms such as simplified and digitalized bureaucratic processes, improved taxation of ESOPs, and increased financial support are needed. Germany must succeed in better highlighting its startup success stories to motivate potential founders and investors to create a start up in Germany or to invest more money into German startups. In addition, Germany must manage to better funnel the general prosperity into the startup world. This could be private individuals through startup funds or by companies and their corporate venture investments. Moreover, the high level of research at German universities must lead to more scalable business models through simplified processes and better support initiatives.

Overall, Germany has every opportunity to continue to be a successful startup location due to its entrepreneurial past and good economic foundation. However, reforms and sincere interest on the part of politicians are needed to further advance the sector. This starts with the general framework conditions for startups. Entrepreneurship and the relevant characteristics and tools

for building new businesses could be brought more into education and thus the general population.

## **6. Limitations and future research**

The limited sample size of respondents meant that the survey's findings might not accurately reflect the wide variety of viewpoints present in the startup community. Furthermore, because the survey was only available online, it might have only been completed by those who were interested in the subject. The results of this study may not be generalizable to other time periods or geographical areas because they are specific to the period when the data were collected. The startup landscape is dynamic, and factors that affect success change rapidly. Despite offering insightful qualitative information, the semi-structured expert interviews only included a small number of participants. Despite efforts to choose experts from diverse backgrounds, it's possible that the results do not fully reflect the range of perspectives and experiences that exist within the startup ecosystem.

The expert interviews and the survey both rely on self-reported data, which can be biased. Participants may respond in a way that is socially acceptable or unintentionally misrepresent their opinions or experiences.

Regarding future research, longitudinal studies tracking changes in the German startup ecosystem would reveal important trends and developments. This would aid in capturing the startup landscape's dynamic nature. A deeper understanding of factors influencing the outcomes of successful and unsuccessful startups in Germany could be gained by in-depth case studies of these businesses. These can offer aspirant businessowners useful advice. The representativeness of survey results can be improved by enlarging the sample size and diversifying the respondents. Data from a wider range of stakeholders, such as investors, accelerators, and support organizations, would also be advantageous.

## 7. References

- Abbasianchavari, A., & Block, J. (2022). Perceptual factors explaining the gender gap in entrepreneurial propensity: A replication and extension. *Journal of Business Venturing Insights*, 17, e00303. <https://doi.org/10.1016/j.jbvi.2022.e00303>
- Aminova, M., & Marchi, E. (2021). The Role of Innovation on Start-Up Failure vs. its Success. *International Journal of Business Ethics and Governance*, 41–72. <https://doi.org/10.51325/ijbeg.v4i1.60>
- Barney, J. (1991). Firm Resource and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120.
- Barrick, M. R., Mount, M. K., & Gupta, R. (2003). META-ANALYSIS OF THE RELATIONSHIP BETWEEN THE FIVE-FACTOR MODEL OF PERSONALITY AND HOLLAND’S OCCUPATIONAL TYPES. *Personnel Psychology*, 56(1), 45–74. <https://doi.org/10.1111/j.1744-6570.2003.tb00143.x>
- Bendel, O. (2023). *Einhorn, Definition: Was ist ein Einhorn?*. <https://wirtschaftslexikon.gabler.de/definition/einhorn-119178>
- Berkus, D. (2006). *Lessons in resource management from aviation and business to help your enterprise thrive and grow Extending the Runway Updated Second Edition 2 Extending the Runway*.
- Boutaleb, F. (2023). *Global Entrepreneurship Monitor 2022/2023 Global Report Adapting to a “New Normal” Design and production: Witchwood Production House GEM Policy Influence: Examples from the UK, Guatemala and the USA 6 Key GEM Definitions and Abbreviations 8*. <http://www.witchwoodhouse.comBBRDesignhttps://bbrdesign.co.uk>
- Brandstätter, H. (2011). Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and Individual Differences*, 51(3), 222–230. <https://doi.org/10.1016/j.paid.2010.07.007>
- CB Insights. (2021). *The Top 12 Reasons Startups Fail*. <https://www.cbinsights.com/research/report/startup-failure-reasons-top/>
- Christensen, C. M., & Bower, J. L. (1995). *Disruptive Technologies: Catching the Wave*.

- Cohen D; Crabtree B. (2006). *Qualitative Research Guidelines Project*.  
<http://www.qualres.org/HomeSemi-3629.html>
- Costa, P. T., & McCrae, R. R. (1992). The Five-Factor Model of Personality and Its Relevance to Personality Disorders. *Journal of Personality Disorders*, 6(4), 343–359. <https://doi.org/10.1521/pedi.1992.6.4.343>
- Dealroom. (2023). *Dealroom Dashboard*. <https://app.dealroom.co/dashboard>
- Dealroom.co. (2020). *Shortage of later stage venture capital in Germany: more acute due to Corona crisis*. <https://dealroom.co/uploaded/2020/06/Berlin-Capital-FINAL.pdf>
- Dealroom.co. (2023). *Guide: Europe*. <https://dealroom.co/guides/europe>
- Diehm, J. (2017). Controlling – das Cockpit für den Gründer. In *Controlling in Start-up-Unternehmen* (pp. 9–32). Springer Fachmedien Wiesbaden.  
[https://doi.org/10.1007/978-3-658-14422-7\\_2](https://doi.org/10.1007/978-3-658-14422-7_2)
- DSM. (2022). *Deutscher Startup Monitor 2022*.  
<https://deutscherstartupmonitor.de/#dsm2022>
- Eisenmann, T. (2021). *Why Start-ups Fail*. <https://hbr.org/2021/05/why-start-ups-fail>
- Geibel, R. C., & Manickam, M. (2016). Comparison of selected startup ecosystems in Germany and in the USA Explorative analysis of the startup environments. *GSTF Journal on Business Review (GBR)*, 4(3). [https://doi.org/10.5176/2010-4804\\_4.3.387](https://doi.org/10.5176/2010-4804_4.3.387)
- George, G. (2002). *Culture and its Consequences for Entrepreneurship*.  
[https://ink.library.smu.edu.sg/lkcsb\\_research](https://ink.library.smu.edu.sg/lkcsb_research)
- Gonzalez, G. (2017). What Factors Are Causal to Survival of a Startup? *Muma Business Review*, 1(9).
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37(6), 504–528.  
[https://doi.org/10.1016/S0092-6566\(03\)00046-1](https://doi.org/10.1016/S0092-6566(03)00046-1)

- Grilo, I., & Irigoyen, J.-M. (2006). Entrepreneurship in the EU: To Wish and not to be. *Small Business Economics*, 26(4), 305–318. <https://doi.org/10.1007/s11187-005-1561-3>
- Gross, B. (2015). *The single biggest reason why start-ups succeed*. [https://www.ted.com/talks/bill\\_gross\\_the\\_single\\_biggest\\_reason\\_why\\_start\\_ups\\_succeed](https://www.ted.com/talks/bill_gross_the_single_biggest_reason_why_start_ups_succeed)
- Gründerplattform. (2023). *Serial Entrepreneur\*in - Gründen in Serie*. <https://gruenderplattform.de/entrepreneur/serial-entrepreneurin>
- Gründerszene. (2023, August 17). *Christian Lindner beseitigt „Showstopper“ bei Mitarbeiterbeteiligungen*. <https://www.businessinsider.de/gruenderszene/business/christian-lindner-beseitigt-showstopper-bei-mitarbeiterbeteiligungen/>
- Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. In *Human Reproduction* (Vol. 31, Issue 3, pp. 498–501). Oxford University Press. <https://doi.org/10.1093/humrep/dev334>
- Hathaway, I. (2016). *What Startup Accelerators Really Do Entrepreneurship for the Long Term*. <https://hbr.org/2016/03/what-startup-accelerators-really-do>
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). *Paradigm Shift to the Integrative Big Five Trait Taxonomy History, Measurement, and Conceptual Issues*.
- KfW. (2022a). *Finanzierungsumfeld wichtigstes Motiv bei der Abwanderung von Start-ups*. [https://www.kfw.de/Über-die-KfW/Newsroom/Aktuelles/News-Details\\_698496.html](https://www.kfw.de/Über-die-KfW/Newsroom/Aktuelles/News-Details_698496.html)
- KfW. (2022b). *KfW-Gründungsmonitor 2022*. [www.kfw.de](http://www.kfw.de)
- Krippendorff, K. (2019). *Content Analysis: An Introduction to Its Methodology*. SAGE Publications, Inc. <https://doi.org/10.4135/9781071878781>
- Kunesch, T. (2022). *Start-ups in Deutschland: Es fehlt der Mut zum Risiko, um global mitzuhalten*. <https://www.tagesspiegel.de/wirtschaft/es-fehlt-der-mut-zum-risiko-um-global-mitzuhalten-6100003.html>

- McKinsey. (2020). *What start-ups need to scale and succeed*.  
<https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/what-start-ups-need-to-scale-and-succeed#/>
- McKinsey. (2022). *How to build a unicorn: Lessons from venture capitalists and start-ups*. <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/how-to-build-a-unicorn-lessons-from-venture-capitalists-and-start-ups>
- Meertens, R. M., & Lion, R. (2008). Measuring an individual's tendency to take risks: The risk propensity scale. *Journal of Applied Social Psychology, 38*(6), 1506–1520.  
<https://doi.org/10.1111/j.1559-1816.2008.00357.x>
- Nicholson, N., Soane, E., Fenton-O'Creevy, M., & Willman, P. (2005). Personality and domain-specific risk taking. *Journal of Risk Research, 8*(2), 157–176.  
<https://doi.org/10.1080/1366987032000123856>
- Not Optional. (2023). *Ranking*. <https://www.notoptional.eu/en/country-ranking>
- OECD. (2019). *OECD Digital Government Index*.  
<https://goingdigital.oecd.org/en/indicator/58>
- Pasayat, A. K., Bhowmick, B., & Roy, R. (2023). Factors Responsible for the Success of a Start-up: A Meta-Analytic Approach. *IEEE Transactions on Engineering Management, 70*(1), 342–352. <https://doi.org/10.1109/TEM.2020.3016613>
- Paunonen, S. V., & Jackson, D. N. (1996). The Jackson Personality Inventory and the Five-Factor Model of Personality. *Journal of Research in Personality, 30*(1), 42–59.  
<https://doi.org/10.1006/jrpe.1996.0003>
- Payne, B. (2011). *SCORECARD VALUATION METHODOLOGY Establishing the Valuation of Pre-revenue, Start-up Companies*.  
<https://www.angelcapitalassociation.org/blog/scorecard-valuation-methodology-rev-2019-establishing-the-valuation-of-pre-revenue-start-up-companies/>
- Peek, S. (2019). *Could a Startup Incubator Benefit Your Business?*  
<https://www.uschamber.com/co/run/business-financing/startup-incubator>

- Picken, J. C. (2017). From startup to scalable enterprise: Laying the foundation. In *Business Horizons* (Vol. 60, Issue 5, pp. 587–595). Elsevier Ltd. <https://doi.org/10.1016/j.bushor.2017.05.002>
- Pinkwart, A., Busch-Casler, J., Haubner, S., Proksch, D., & Stranz Wiebke. (2016). *Analyse des Gründungsgeschehens in Deutschland. Mit Vorschlägen zur Verbesserung der Gründungsbedingungen*. [www.hhl.de/publications](http://www.hhl.de/publications)
- Porter, M. (1985). *Competitive advantage*. Free Press.
- Porter, M. E. (1990). The Competitive Advantage of Nations. *Harvard Business Review*.
- Rauch, A. (2020). Opportunities and Threats in Reviewing Entrepreneurship Theory and Practice. In *Entrepreneurship: Theory and Practice* (Vol. 44, Issue 5, pp. 847–860). SAGE Publications Ltd. <https://doi.org/10.1177/1042258719879635>
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385. <https://doi.org/10.1080/13594320701595438>
- Ries, E. (2011). *THE LEAN STARTUP*.
- Roeding, C. (2023). Die „Klappt eh nicht“-Mentalität: Wie Deutschland den Anschluss verliert. <https://www.handelsblatt.com/technik/forschung-innovation/insight-innovation-die-klappt-eh-nicht-mentalitaet-wie-deutschland-den-anchluss-verliert/28998812.html>
- Rowley, J. (2012). Conducting research interviews. *Management Research Review*, 35(3–4), 260–271. <https://doi.org/10.1108/01409171211210154>
- Sajjad, S. I., & Aasim, M. D. (2012). Impact of Culture on Entrepreneur Intention. *Information Management and Business Review*, 4(1), 30–34. <https://doi.org/10.22610/imbr.v4i1.960>
- Saura, J. R., Palos-Sanchez, P., & Grilo, A. (2019). Detecting indicators for startup business success: Sentiment analysis using text data mining. *Sustainability (Switzerland)*, 11(3). <https://doi.org/10.3390/su11030917>

- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.).
- Sevilla-Bernardo, J., Sanchez-Robles, B., & Herrador-Alcaide, T. C. (2022). Success Factors of Startups in Research Literature within the Entrepreneurial Ecosystem. *Administrative Sciences, 12*(3). <https://doi.org/10.3390/admsci12030102>
- Shafie, S., Liedtke, M., & Asghari, R. (2021). German Venture Capital Market — Investments and Framework. In *Wirtschaftsdienst* (Vol. 101, Issue 11, pp. 906–910). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1007/s10273-021-3052-9>
- Shankar, V., & Carpenter, G. (2013). *The Second-Mover Advantage*. [https://insight.kellogg.northwestern.edu/article/the\\_second\\_mover\\_advantage](https://insight.kellogg.northwestern.edu/article/the_second_mover_advantage)
- Skawińska, E., & Zalewski, R. I. (2020). Success Factors of Startups in the EU—A Comparative Study. *Sustainability, 12*(19), 8200. <https://doi.org/10.3390/su12198200>
- Startup Genome. (2023). *Discover Global Tech Ecosystems*. <https://startupgenome.com/ecosystems>
- Statistisches Bundesamt (Destatis). (2023). *Überlebende Gründungen nach 3 Jahre*. [https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Unternehmen/Unternehmensdemografie/\\_inhalt.html#420522](https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Unternehmen/Unternehmensdemografie/_inhalt.html#420522)
- Steffens, P., Davidsson, P., & Fitzsimmons, J. (2009). *Performance Configurations Over Time: Implications for Growth-and Profit-Oriented Strategies P T E &*.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Thiel, P. (2014). *Zero to One: notes on startups, or how to build the future*.

- Triebel, C., Schikora, C., Grasko, R., & Sopper, S. (2018). *Failure in Startup Companies: Why Failure Is a Part of Founding* (pp. 121–140).  
[https://doi.org/10.1007/978-3-319-72757-8\\_9](https://doi.org/10.1007/978-3-319-72757-8_9)
- Wagner, E. T. (2013). *Five Reasons 8 Out Of 10 Businesses Fail*.  
<https://www.forbes.com/sites/ericwagner/2013/09/12/five-reasons-8-out-of-10-businesses-fail/?sh=76ed0cc86978>
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, Entrepreneurial Self-Efficacy, and Entrepreneurial Career Intentions: Implications for Entrepreneurship Education. *Entrepreneurship Theory and Practice*, 31(3), 387–406.  
<https://doi.org/10.1111/j.1540-6520.2007.00179.x>
- World Justice Project. (2022). *WJP Rule of Law Index*.  
<https://worldjusticeproject.org/rule-of-law-index/global/2022/Germany/>
- Y Combinator. (2023). *Stages of startups*. <https://www.ycombinator.com/library/Ek-stages-of-startups>
- Zhao, H., & Seibert, S. E. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91(2), 259–271. <https://doi.org/10.1037/0021-9010.91.2.259>
- Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review. *Journal of Management*, 36(2), 381–404. <https://doi.org/10.1177/0149206309335187>

## Appendices

### Appendix 1 – Survey questionnaire

Following questions were part of the online survey which was distributed via the online survey software Qualtrics. Answers were then collected from online survey providers amazon MTurk and clickworker.

#	Question/Statement	Question Type	Answer Options
<b>Please answer the following questions regarding your startup behaviour:</b>			
1	I have created a startup in the past.	Binary	Yes/No
2	I have the intention to create a startup at some point in the future.	Binary	Yes/No
3	I have the feeling that I have the skills and knowledge to create a successful startup.	Binary	Yes/No
4	I received education on how to create a startup in school or university.	Binary	Yes/No
5	I think creating a startup in my home country is easy.	Binary	Yes/No
6	I know someone who has started a business.	Binary	Yes/No
7	In my family, there is history of entrepreneurial activity.	Binary	Yes/No
8	I know startup founders in my country from which I draw inspiration to potentially create a startup myself.	Binary	Yes/No
<b>Here are a number of personality traits that may or may not apply to you. Please rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other</b>			
9	I see myself as extraverted, enthusiastic.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
10	I see myself as dependable, self-disciplined.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
11	I see myself as dependable, self-disciplined.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
12	I see myself as anxious, easily upset.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
13	I see myself as open to new experiences, complex.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
14	I see myself as reserved, quiet.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
15	I see myself as sympathetic, warm.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
16	Please select the option "Agree".	Attention question	Strongly disagree (1) – Strongly Agree (7)
17	I see myself as disorganised, careless.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
18	I see myself as calm, emotionally stable.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
19	I see myself as conventional, uncreative.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
20	Safety first.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
21	I do not take risks with my health.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
22	I prefer to avoid risks.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
23	I take risks regularly.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
24	I really dislike not knowing what is going to happen.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
25	I usually view risks as a challenge.	7-point Likert scale	Strongly disagree (1) – Strongly Agree (7)
26	I view myself as a ...	7-point scale	Risk avoider (1) – Risk seeker (7)

Demographics			
27	In which country do you currently reside in?	Multiple choice	All countries of the world
28	In case you are from Germany, which state are you currently residing in?	Multiple choice	All German states
29	How old are you?	Multiple choice	Under 18; 18 - 24 years old; 25 - 34 years old ;35 - 44 years old; 45 - 54 years old; 55 - 64 years old; 65+ years old
30	How would you describe yourself?	Multiple choice	Male; Female; Non-Binary / third gender; Prefer to self-describe; Prefer not to say
31	What best describes your employment status over the last three months?	Multiple choice	Working full time; Working part-time; Unemployed and looking for work; A homemaker or stay-at-home-parent; Student; Retired; Other
32	What was your total household income (in USD) before taxes in the past year?	Multiple choice	Less than \$25,000; Between \$25,000 and \$49,999; Between \$50,000 and \$99,999; Between \$100,000 and \$199,999; More than \$200,000;
33	Choose one or more races that you consider yourself to be.	Multiple choice	White or Caucasian; Black or African American; American Indian / Native American or Alaska Native; Asian; Native Hawaiian or other pacific islander; Other; Prefer not to say
34	Please indicate the highest level of education you have completed or the highest degree you have achieved.	Multiple choice	Less than high school degree; High school graduate; Vocational training; Bachelor's degree (or equivalent); Master's degree (or equivalent); Doctoral degree
35	Please indicate your political affiliation or orientation.	Multiple choice	Extremely liberal; Somewhat liberal, Neutral; Somewhat conservative; Extremely conservative

Table 4 Survey questions

## Appendix 2 – Interview guideline

The order of the questions was slightly adjusted according to the interview partner and their respective background. Furthermore, when the interviewee answer questions before they were asked, they were left out completely.

### Introductory questions

**Question 1:** Could you please introduce yourself briefly? Your background, your current role, and how it is connected to the startup industry in Germany?

**Question 2:** How long have you been involved in this field?

### Main questions

**Question 3:** How would you describe the current state of the German startup ecosystem?

**Question 3.1:** How easy is it to create a startup in Germany? {only for expert group startup founder}

**Question 4:** Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?

**Question 5:** What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?

**Question 6:** How do you measure the success of startups and what is done to ensure it?

**Question 7:** What influence does German culture and mentality have on the success of German startups?

**Question 8:** How do you see the future of startup Germany?

### Appendix 3 – Interview results

The table below shows an overview of what experts mentioned, directly or indirectly, as success factors and as positive or negative aspects about the German startup ecosystem.

	Experts										Total number of mentions	
	SF1	SF2	SF3	SF4	VC1	VC2	VC3	VC4	IE1	IE2		
Success factors	<b>Internal</b>											
	Experience of management team/founder		x		x	x	x	x		x	x	7
	Team/Talent	x	x	x	x	x	x	x	x	x	x	10
	Compelling Product	x	x		x		x	x				5
	Market fit	x	x			x	x	x		x	x	7
	Culture		x	x	x		x		x	x		6
	Potential of product								x			1
	Employee Stock Option Plan	x			x	x		x	x	x		6
	Startup ecosystem	x		x	x			x	x	x		6
	Sales competency						x	x			x	3
	<b>External</b>											
	Macroeconomic Timing	x		x	x	x		x	x			6
	Product Timing (Market is ready?)	x	x			x	x	x	x	x	x	8
	Access to Talent	x	x	x	x	x	x	x	x	x		9

	Industry					x	x	x				3	
	Taxes on for ESOP&VSOP	x			x	x		x	x			5	
	Taxation of startups		x	x	x	x			x			5	
	<b>Other</b>												
	Financing	x	x	x	x	x	x	x	x	x	x	10	
German ecosystem	<b>Negatives</b>												
	Persistent skepticism towards startups, culture of envy	x			x			x		x		4	
	Lack of political and financial support for startups from government	x	x	x	x	x		x	x	x		8	
	Too much and too complicated bureaucracy		x	x		x		x	x	x		6	
	Lack of entrepreneurial spirit	x	x	x	x		x	x		x	x	8	
	High level of innovation in German research cannot be converted into startups							x	x		x	3	
	Overall lack of venture capital in growth phases				x	x			x	x	x	5	
	Success stories are not communicated good enough		x			x	x					3	
	German market has its limits	x	x						x			3	
	In Germany, founders can't fall deep socially due to social framework				x				x	x		3	
	Risk-averseness of investors						x			x		2	
	Traditional German industry needs to start investing in startups								x		x	2	
	<b>Positives</b>												
	Good access to Talent through top universities	x			x	x	x	x	x	x	x		8
Great scientific and technological research			x	x	x	x	x	x		x		7	
Development of strong startup ecosystems and hotspots	x		x	x		x		x	x			6	
Many success stories already in place		x			x	x	x	x	x			6	
Startup developed market in itself (Employees become founder)							x		x			2	
Political stability and legal safety				x				x				2	

	Many investors in pre-seed and seed phase				x	x			x			3
	Mental shift in younger generation to take more risks		x								x	2

Table 5 Expert interviews thematic mentions

## Appendix 4 – Interview Summaries

The expert interviews are summarized below. Since the interviews were all held in German, the translation of some statements was adapted so that the understanding for the English reader is secured. Some questions are marked as “*Question not asked*” when the expert included answers while answering other questions or the question was not relevant for the expert category.

### *Startup Founder 1 (SF1)*

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Very challenging environment, especially regarding financing</li> <li>- Startups “die” everywhere due to lack of profitability</li> <li>- Macroeconomic trends form the current situation in the ecosystem (interest rates, post-covid) and promotes insecurities</li> </ul>
2	How easy is it to create a startup in Germany?	<ul style="list-style-type: none"> <li>- Can’t answer the question for whole of Germany, rather for Berlin</li> <li>- Ecosystem is very valuable to create a startup (for financing, talent, office space, events for networking)</li> <li>- Berlin is a great place to create a startup due to its ecosystem</li> <li>- Risk taking is higher in countries like the UK or the US, could potentially make it easier</li> <li>- Regulatory process was rather easy, but ESOPs are difficult to implement</li> </ul>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Product was very much made for the German market and circumstances were better (Country is known, they speak the language, biggest market in Europe, better feeling for the country)</li> <li>- Startup ecosystem in Berlin supported the decision to start in Germany</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- A good team which solves a relevant problem in a market which is big enough</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<ul style="list-style-type: none"> <li>- Most important KPI is revenue (which is most important for the investors as well)</li> <li>- Startup works with OKRs (Objective and Key Results)</li> </ul>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Startup culture is not understood in the entire personal environment</li> <li>- Germans tend to underestimate the German market and people don’t think about expansion enough, people don’t think about building a solution for the world</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Germany has a lot to do</li> <li>- Regulatory difficulties, amount of VC available</li> <li>- European or worldwide thinking is necessary to not restrict the possible sizes</li> <li>- More governmental initiatives regarding financing and regulatory</li> <li>- Bureaucracy reduction</li> </ul>

Table 6 Answers SF1

### *Startup Founder 2 (SF2)*

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Germany has an interesting market but is the toughest place to create a startup</li> <li>- Bureaucracy often hinders operations due to amount and extend</li> <li>- Lack of motivated talent in Germany (“could work somewhere else”)</li> </ul>

		<ul style="list-style-type: none"> <li>- Lack of qualified employees in Germany</li> <li>- Startup scene is pretty good in Germany, but just limited</li> </ul>
2	How easy is it to create a startup in Germany?	<ul style="list-style-type: none"> <li>- Very difficult due to bureaucratic issues</li> </ul>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Smaller countries need to focus on internationalization from the start</li> <li>- Germany is big enough to survive, but too small to scale</li> <li>- Financing can be easier or also more difficult than in Germany, depending on the country</li> <li>- VCs in other countries often see bigger vision of companies elsewhere (e.g., US)</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Financing and motivated team with great mindset as key success factors</li> <li>- People need to “feel good” to stay with the company</li> <li>- Employees need to identify with the company and thereby tend to stay with the company</li> <li>- Good product and market feedback lets employees stay and the startup successful</li> <li>- Product needs to cover a need on the market</li> <li>- Real commitment of few employees can bring startup forward “overnight”</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<ul style="list-style-type: none"> <li>- Use tools for all processes, ensures processes are done in the right way</li> </ul>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Younger people are more confident and risk seeking than older generation</li> <li>- Older generation preferred the safe way</li> <li>- Older generation in management positions are more risk averse which hinder optimistic growth</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Startups won't suffer as much in the future</li> <li>- But overall economic times will be hard for Germany in the near future</li> <li>- Other political problems like pension problem</li> <li>- But Germany has the power to come back and compete internationally again</li> <li>- Germany needs to shift towards more risk-seeking mentality</li> </ul>

Table 7 Answers SF2

### Startup Founder 3 (SF3)

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Difficult environment due to macroeconomic situation (especially regarding financing)</li> <li>- Good development of German ecosystem (More funds, former startup employees become investors or founders)</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- German university networks are great to start a business from</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Team needs to stand behind the product</li> <li>- Market</li> <li>- Timing (market readiness and macroeconomic perspective)</li> <li>- Readiness to “go the extra mile”</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<ul style="list-style-type: none"> <li>- OKRs per department</li> </ul>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- People within the ecosystem are all motivated and committed</li> <li>- Talents in the hiring funnel are sometimes not committed enough for early-stage startups</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Funding for certain topics is already well developed</li> <li>- Access needs to be easier for all startups, since access is only well developed for certain topics</li> </ul>

Table 8 Answers SF3

### Startup Founder 4 (SF4)

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Trend is downwards for the first time in years</li> <li>- More focus on product and not only on growth</li> <li>- Investor landscape is not well developed in later stages</li> </ul>
2	How easy is it to create a startup in Germany?	<ul style="list-style-type: none"> <li>- Pretty easy, notary agreement is easy</li> <li>- Only set-up like ESOPs is difficult in later stages</li> </ul>

		<ul style="list-style-type: none"> <li>- Wide layer for angel/pre-seed/seed investors</li> <li>- Good access to talent, but mindset is sometime not good enough</li> </ul>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Possibility to start a company from great safety due to social system, only opportunity cost</li> <li>- Founders become more appraisal, but could be better as well</li> <li>- Market somewhere else is more competitive</li> <li>- Excellent education and a good industry around you</li> <li>- Political safety</li> <li>- Infrastructure is well developed</li> <li>- ESOPs are not developed very well</li> <li>- Regulatory processes are difficult</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Team is the biggest factor, especially the founding team which often drift apart</li> <li>- Successful fundraising</li> <li>- Business model needs to be good</li> <li>- Culture needs to be actively lived and continuously reviewed</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<i>Question not asked</i>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Germans tend to go the safe way and mistakes are not welcomed</li> <li>- If one fails, then one is also “properly beaten” on it from above</li> <li>- People are very envious</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Industry needs to start investing in German startups to grow business</li> <li>- Companies need to take risks to help German startup</li> <li>- More later stage VCs</li> </ul>

Table 9 Answers SF4

### Venture Capitalist 1 (VC1)

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Development had some Up's and Down's</li> <li>- Last years, focus was on top-line growth and not really on profitability</li> <li>- Financing becomes more important than ever</li> <li>- More focus on quality (Difficult for founders, since they need a higher quality product and good for investors since they have more selection)</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Very attractive for investors, since good education brings up many good talents and business ideas (B2B focus and software)</li> <li>- Makes international investors invest in Germany to make use and invest of high-quality startups</li> <li>- No willingness to promote startups from the German government</li> <li>- Early stages are well funded, but difficult in growth stages from German investors (Lack of willingness to take risks, Risk averse basic structure, money managers are not educated well -&gt; better in UK for example)</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Experienced founder in the industry (network and expertise)</li> <li>- Market potential and amount of competitors</li> <li>- Team around the founder (how homogenous is it? Which DNAs are represented?)</li> <li>- Financing is available</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<ul style="list-style-type: none"> <li>- Close collaboration of VC ensures success after initial investment (strategic advice for example)</li> </ul>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Strong shift in Germany though success and failure stories</li> <li>- Germans are entrepreneurial people</li> <li>- Especially young people are risk seeking and want to take initiatives</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Germany loses its industrial position in the market</li> <li>- Politics currently has no “real” interest in startups</li> <li>- Change of taxation of ESOPs (Dry income as a big problem)</li> <li>- Bureaucracy needs to improve and qualified workers from abroad are needed</li> <li>- Politics need a real shift</li> <li>- Founders need to be able to concentrate on their business and not on bureaucracy</li> </ul>

Table 10 Answers VC1

### Venture Capitalist 2 (VC2)

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Positive situation of the startup environment (number of startups, international and domestic investors, ecosystem, success stories)</li> <li>- Even if the German market is limited, growth is still possible</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>

3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- German has a broad base of former startup employees who nowadays start their own business, not all startups come straight from university</li> <li>- Attractive European market</li> <li>- Education is still very good in Germany (university and entry-level jobs)</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Founder needs to be experienced</li> <li>- Relevant size of potential market</li> <li>- Technology needs to be outstanding</li> <li>- Economic potential</li> <li>- Implementation of the product</li> <li>- Distribution of the product</li> <li>- Ambition to achieve great things</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<ul style="list-style-type: none"> <li>- Number of investments guarantees success, only a limited number of investments need significantly high return where they make up failed investments</li> <li>- VC has other goals than single startups</li> </ul>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Germans don't dream big enough, often only existential entrepreneurship</li> <li>- Founders tend to not plan big enough</li> <li>- Too big of a focus on "break-even" and no ambitious dreaming</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Success stories needs to influence new success stories</li> <li>- This is true for former employees who become founders themselves or the enhancement of attractiveness for investors who know that success is possible)</li> </ul>

Table 11 Answers VC2

### Venture Capitalist 3 (VC3)

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Situation is difficult from a macroeconomic perspective</li> <li>- Startup ecosystem had a strong growth in the past years</li> <li>- High-tech industries have a hype and receive good amount of financing, isn't the case for all industries</li> <li>- Focus shifted more towards break-even and not only on growth anymore</li> <li>- German has a bigger focus on break-even than the US/UK</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Germany has great potential in industry where they have structural and historic strengths (Examples are industry 4.0, automation, robotics, logistics)</li> <li>- German has strengths in mid-size enterprises ("Hidden champions")</li> <li>- Germany has great demand for startups in industrial environment due the industry structure</li> <li>- Good fundamental research but Germany can't commercialize those qualities</li> <li>- Good university education</li> <li>- Very bad digital infrastructure</li> <li>- Good value chain infrastructure</li> <li>- Good plannability due to stable political and economic situation</li> <li>- ESOPs taxation is better now</li> <li>- Lack of entrepreneurial spirit</li> <li>- Incentive to take risk and start own business not as given as in the U.S.</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Relevant experience of the team in the specific business</li> <li>- Technological, commercial and sales focus in management team</li> <li>- Product-market fit and if product really solves an issue</li> <li>- Good financial strategy to attract right investors at the right time</li> <li>- Active participation in ecosystem (not only location based but also thematic)</li> <li>- International scalability</li> <li>- Sales competency (but hard to get in early stages)</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<ul style="list-style-type: none"> <li>- KPIs for early growth</li> <li>- In general, don't measure too early to not conflict with the R&amp;D phase</li> </ul>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Lack of entrepreneurial culture, lack of recognition of startup companies</li> <li>- Social incentive not great enough to take such a risk</li> <li>- Entrepreneurs often with experience from abroad to gain entrepreneurial mindset</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Stronger connection between research institutes and business (incl. Debureaucratization), transfer of good research into business models</li> <li>- Political and social recognition of startups (awards, political promotion of startups)</li> <li>- Stronger state financial investments in relevant technologies</li> </ul>

Table 12 Answers VC3

### Venture Capitalist 4 (VC4)

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Strong development over the last decade, but still lagging behind in worldwide comparison</li> <li>- Potential not fully used</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Good parameters for startups in Germany (legal safety, access to talent, attractive location to hire people from abroad), can only be understood when you have been abroad</li> <li>- Great technological baseline</li> <li>- Good access to capital, but amounts should be higher</li> <li>- Good infrastructure</li> <li>- Taxation for investment companies is good (e.g., when you exit an investment)</li> <li>- Germany isn't able to funnel wealth into startup ecosystem</li> <li>- Germany is only investor but not customer (revenue is way more valuable than investment)</li> <li>- Wrong set-up of governmental investment initiatives</li> <li>- Germany has highest quality of research but can't convert the technologies to business models (no standardized processes)</li> <li>- Large corporations have difficulties to cooperate with startups (process is too long and difficult)</li> <li>- Working council needs to confirm software implementation (loss of productivity is enormous for companies and startups are sometimes already out of business)</li> <li>- Notary requirements difficult when operating internationally</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<i>Most answers were given in other questions by the expert</i> <ul style="list-style-type: none"> <li>- Timing</li> <li>- Passion and not giving up too early</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<i>Question not asked</i>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Most startups start operations only in Germany which makes internationalization difficult</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Germany needs to further develop their ecosystems</li> <li>- Success in the future:</li> <li>- Germany needs to be customer of startups</li> <li>- Germany needs to further develop financial initiatives for investments</li> <li>- Commercialization of cutting-edge research</li> <li>- Talent</li> </ul>

Table 13 Answers VC4

### **Industry Expert 1 (IE1)**

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Very dynamic due to macroeconomic developments</li> <li>- High investments in hotspots/ecosystems</li> <li>- Lower investments in recent years</li> <li>- Startups have developed market in themselves (founding as well as working in startups and then possibly founding themselves, creating attractive conditions)</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Bureaucratic hurdles are high ("Processes are medieval")</li> <li>- German government must do much more to support founders</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- Founder (as opposed to large company)</li> <li>- Team around founder</li> <li>- Motivation: impact, sustainability (People are more focused on such topics and there those aspects attract good talent for a great team)</li> <li>- Cultural environment in the company</li> <li>- Market for the product</li> <li>- Employee participation as compensation model</li> <li>- Hyperscale growth only possible if those affected are made shareholders (motivation)</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<i>Question not asked</i>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Germans tend to be risk averse (also on the investor side)</li> <li>- Lack of entrepreneurial spirit</li> <li>- Culture of envy still very much present</li> <li>- Success stories most of the time come from several failures, which is not supported in Germany</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- Simplified processes at European level to promote entrepreneurship, European startup funds (private as well as public)</li> <li>- Startup scene in Germany already very advanced</li> </ul>

		- Social responsibility not to admit defeat (Engagement to ensure a future for our children and their children)
--	--	---

Table 14 Answers IE1

### **Industry Expert2 (IE2)**

#	Question	Summarized answer
1	How would you describe the current state of the German startup ecosystem?	<ul style="list-style-type: none"> <li>- Financing as biggest hurdle</li> <li>- Germany has deficits in venture capital, conversion of patents to business model is very low</li> <li>- High quality deep-tech technologies but no business model</li> <li>- Those technologies attract international investors</li> </ul>
2	How easy is it to create a startup in Germany?	<i>Question not asked</i>
3	Even though the startup ecosystem in Germany and Europe is constantly evolving, the largest and most successful markets are still in other countries like the USA or Israel. How attractive is the German startup market to you compared to others? What sets it apart?	<ul style="list-style-type: none"> <li>- Very good university education</li> <li>- Good governmental grants for startups</li> <li>- Good access to skilled workers</li> <li>- Germany is not attractive for immigration of skilled workers (individuals or overall talent)</li> <li>- Very secure country where failure is very caught very softly (social system) -&gt; automatically inhibits "real" entrepreneurship, rather existential entrepreneurship</li> <li>- Researchers need possibility to commercialize their IP</li> <li>- Initiatives are tied to economic developments</li> <li>- High levels of bureaucracy</li> </ul>
4	What are the key factors for the success of a startup? And how do these factors differ from the perspective of a VC fund?	<ul style="list-style-type: none"> <li>- High entry barriers for the competition</li> <li>- Early phase product market fit, without profitability but potential needs to be visible</li> </ul>
5	How do you measure the success of startups and what is done to ensure it?	<i>Question not asked</i>
6	What influence does German culture and mentality have on the success of German startups?	<ul style="list-style-type: none"> <li>- Having created several startups in the past is rather seen as restless and not necessarily successful</li> <li>- People younger than 50 have a better entrepreneurial mindset</li> <li>- But cultural shift is necessary for people older than 50 which have political influence and the capital to fund the young startups</li> </ul>
7	How do you see the future of startup Germany?	<ul style="list-style-type: none"> <li>- IPOs of startups can enable new potentials and can guarantee access to capital when VC is not attracted to them</li> <li>- Further develop startup ecosystems</li> <li>- Further funnel money from traditional industries to the startup ecosystem (like it happens in Munich)</li> <li>- Develop startups through their historic and industrial strengths</li> <li>- Focus on industrial strengths and "not try to create the next facebook"</li> <li>- Germany needs to be attractive for VC</li> <li>- International talent needs to be attracted to Germany</li> </ul>

Table 15 Answers IE2