

A Work Project, presented as part of the requirements for the Award of a Master's degree in  
International Management from the Nova School of Business and Economics.

**The impact of founders' personal characteristics on fundraising success in early-  
stage entrepreneurship**

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## **Abstract**

Launching a successful entrepreneurial project is one of the biggest challenges entrepreneurs face. Therefore, research has already explored success factors of early-stage entrepreneurs and uncovered several biographical characteristics of founders, that positively impact a project's performance. As access to capital is one of the key drivers for early start-up success, this study specifically aims to expand existing knowledge by examining whether biographical characteristics have an impact on the founder's ability to raise funds when launching a crowdfunding campaign on the Kickstarter platform. By analyzing 247 design projects in Germany, we find that four characteristics influence the founder's ability to raise capital in a crowdfunding setting.

*Keywords: Entrepreneurship, Crowdfunding, Germany, Kickstarter, Founder*

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# **1 Introduction**

## **1.1. Problem statement**

Around the globe, entrepreneurship remains the key factor in fostering national economic growth and innovation while creating new opportunities for all citizens (Cordova 2014, 6; Lose & Tenge 2016, 370; Sherman & Chappell 1998, 313). In Europe especially, small businesses appear to be the “backbone” of the economy, having created 85% of all new job positions in the year 2015-2019 and representing major sources for innovation (Council of the European Union 2020, 1). In appreciation of their contribution to the economy, a variety of financing opportunities have established themselves to encourage the formation and growth of smaller start-up companies. Among those are crowdfunding platforms, that, through the rise of the internet, have quickly established themselves as one of the key capital-raising opportunities for small projects and start-ups. Next to challenges like generating ideas and creating demand, the most important challenge that founders have to overcome in early-stage entrepreneurship, remains the question of financing (Prohorovs et al. 2018, 1). With success rates and developments of start-up ventures depending highly on their access to capital (Stucki 2013, 26), founders are faced with an important question: do certain biographical characteristics of the founder drive the financing outcome of their start-up, irrespective of the merits of the underlying company? In more detail, how impactful are biographical characteristics of entrepreneurs on their success in crowdfunding campaigns? Since 1965 academic literature has extensively discussed the founder’s impact on the success of their start-up. With success being widely defined across research, only a few researchers have explored the impact of biographical characteristics specifically on the start-ups funding success. Hence also Prohorovs et al. (2018, 23) suggest, that “due to the very limited number of studies on the success criteria for attracting seed investments, it is necessary to expand the research in this area“. With regard to this, the primary research goal of this paper is to explore the impact of different personal characteristics

on the founders funding success in a crowdfunding setting and evaluate whether these factors influence early-stage entrepreneurial success.

## **1.2. Structural Approach, goal and research questions**

To answer the research question, “Do biographical characteristics of founders influence their project's funding success?” the paper is structured into three main parts. In the first part, the paper presents the theoretical background of crowdfunding. With this, the following question will be answered: *What role does crowdfunding play in early-stage entrepreneurship?*

In the second part, 47 studies on the influence of founders' biographical characteristics on start-up success are analyzed and contrasted. Hereby the goal is to obtain information on the topic from existing studies. The following question will be answered: *What have researchers already found out about biographical factors that influence the success of a start-up?*

The literature for the first and second part was obtained using Google Scholar and online libraries. Most sources included academic sources that were reviewed for validity and credibility by, for example, ensuring the journal's citation in other academic papers. Additional sources included books and online articles. The findings of the literature review offered the basis for the development of nine hypotheses. These formed the framework of the empiric analysis. Based on these hypotheses, the following research question will be answered: *Do biographical characteristics of founders influence their project's crowdfunding success?*

To answer the research question, the empiric analysis of this paper follows a quantitative research design and a deductive logic. To obtain the required data on the founder's background and characteristics, supplementary manual LinkedIn searches were performed for each of the founder and co-founder of the initially 441 listed design projects. After the data collection process, the final sample size included 247 projects in the time series from 2010-2022. The geographical focus of this paper is early-stage entrepreneurship in Germany. The main reason for this is, that Germany has been found to be overlooked in this research field, despite being

one of the largest start-up ecosystems and leading innovation hubs in Europe. Moreover, the researcher's personal ambition to establish a start-up in Germany motivated this choice. With respect to the analysis results, the paper makes four major contributions to the existing literature on successful financing of crowdfunding projects.

## **2 Literature Review**

### **2.1. The role of crowdfunding in early-stage entrepreneurship**

About two decades ago, investing in non-listed, private small businesses and start-ups was only possible for accredited investors. During the past few years however, crowdfunding has evolved as a new type of opportunity for individuals and early-stage entrepreneurial projects to raise funds without relying on venture capital or alternative investment sources (Mollick 2014, 2). The popularity of this new type of financing was accelerated by two reasons. Initially, the financial crisis of 2008, leading to difficulties in raising funds, as the willingness of banks to lend decreased (Harrison 2013, p. 285; Bruton et al. 2015, p. 12). Secondly, by the development of Web 2.0, which accelerated the establishment of collaborative web pages (Cumming 2012, p.25). In the year 2000, Artist Share, the first documented crowdfunding platform for private people, was founded (Fundable 2022, 1). Even though, the concept of crowdfunding platforms first spread in the context of financing creative projects and artists, it quickly expanded to other areas (Bradford 2012, 4). With the internet serving as an accelerator for the rise of crowdfunding platforms, many different websites that offer crowdfunding opportunities have developed until present. Crowdfunding platforms do not only depict a major revolution in investment opportunities for small investors, that now have the opportunity to invest in a project company before its IPO, but it also created more inclusive financial systems with new capital-raising opportunities for small businesses (Grober 2017, 1). Across literature, crowdfunding is defined as a financial contribution to products, projects or ideas by a number of investors, as a way for individuals to obtain funding (Agrawal et al. 2013, 5; Unterberg 2010, 124; Bouncken

et al. 2015, 407; Wenzlaff et al. 2012, 2). Others more narrowly define crowdfunding as a process of receiving fairly small contributions from a comparatively large number of individuals (Mollick 2014, 1), being a new viable source for entrepreneurial seed capital (Schwienbacher and Larralde 2010, 247). Hereby, some argue that crowdfunding has drawn inspiration from the concepts of crowdsourcing (Poetz and Schreier 2012, 1573) and microfinancing (Morduch 1999, 249). Generally, crowdfunding can be divided into four types: debt-based, equity-based, reward-based, donation based, and therefore provide various incentives for investors, as depicted in [Appendix 1](#) (Jason 2019; Johnson 2022; Detweiler 2021). Worldwide, crowdfunding has exponentially grown in the past years, and is expected to continue to do so in the future (Chang 2022, 1). A market analysis conducted by Technavio (2021) shows, that the global crowdfunding market is expected to grow by \$196.36 billion from 2021 to 2026 and the global transaction value is projected to reach \$ 1.2 billion by 2025. Hereby, the U.S. is by far the largest market for transaction value (US\$ 504 million) in crowdfunding, followed by the UK (US\$ 62 million) in 2021(Statista 2021).

## **2.2 The role of biographical characteristics on start-up success**

In the past thirty years, a lot of research has emerged on start-ups and their founders. While there is a broad consensus about founders and their personal characteristics shaping their companies and setting them on a certain path, only very few researchers specifically examine the possible impacts of the founder's characteristics on their project's capital raising success. In fact, it could be observed that most entrepreneurial research in this field focuses on the impact of the founder's characteristics on the "operational" success of their start-up, whereby the first three years after the creation of the start-up are regarded as critical for defining success, and not the success in capital attraction. Hereby, for instance Baptista et al. (2013, p.832) argue, that personal characteristics play an important role in the firm's survival in the early years, whereby Packalen (2007, p.874) and Muzyka et al. (1996, p.273) add, that the biographical

characteristics of the founding team also strongly determine the legitimacy of an organization, especially in early years. Biographical characteristics of founders, that have been found to increase the start-up's likelihood of success however also represent a key issue in the financing problem. Comprehension of these factors could provide entrepreneurs with a better understanding of investor judgments and increase founders' chances of attracting capital (Prohorovs et al. 2018, 48). Thus, while entrepreneurial success can conclusively be defined by a start-up ultimately becoming a profitable and sustainable growing business, this paper advocates that successfully raising seed capital is the key to reaching this stage of operational success. Therefore, the logical prior step in discussing the success of an early-stage startup is to look at the success of raising capital. By reviewing 47 studies on start-up success factors between the years 1965-2019, nine main categories of biographical characteristics that influence the success of the founder and its start-up could have been identified. Based on those findings, the paper develops several hypotheses that serve as a basis to further examined the success of startups in the context of successful fundraising. For reference see [Table 1](#) and [Appendix 2](#).

## **2.3 Hypotheses development**

### **Prior work experience**

There is a broad consensus among researchers, that the success of new ventures is shaped by the **prior work experience of their founders** (Agarwal et al. 2004, 503). Studies found that pre-entry knowledge significantly influences the firm survival in early years and previously acquired skills play a crucial role in the early success of the entrepreneur (Baptista et al. 2013, 831). Entrepreneurs with prior work experience have been found to better recognize and exploit opportunities (Shane & Venkataraman 2000, 217) and benefit from the knowledge acquired throughout their career (Agarwal et al. 2004, 503). Furthermore, it is argued that prior work experience provides founders with a certain level of legitimacy, helping them to better obtain



the resources they require (Stinchcombe 1965, 181) and is therefore considered a critical factor for venture success (Starr & MacMillan 1990, 83). In the micro context of funding success, investigated in this paper, these findings translate into the following hypotheses:

- ***Hypothesis 1:** The longer the prior work experience of the founder, the greater the funding success.*

### **Prior founding experience**

A second widely discussed factor is the impact of **prior founding experience** on the entrepreneur's success. In the study of Shane & Khurana (2003, 523), the likelihood of creators to found a company at the MIT was higher when they had prior founding experience. Also (Gompers et al. 2006, 2) found out that founders that previously owned a successful business had a 30% chance of success with the new one, whereby first-time entrepreneurs only had a 18% chance of success. Entrepreneurs were also found to be more successful in attracting capital, having had previous experience in creating a business (Prohorovs et al 2018, 48). Hence, having built specific knowledge and better networks within their entrepreneurial career, increased the start-ups chances to succeed in the first years (McGrath & Macmillan 2000, 337). Collectively, the above points form the basis for the next hypothesis:

- ***Hypothesis 2:** The funding success of the company is higher if the founder has prior experience in founding a company.*

### **Industry knowledge**

Most interestingly the impact of prior work experience is likely to be more useful for the entrepreneur if it was in the **same industry** as the new firm because, the amount of industry specific knowledge and the amount of social and professional contacts were higher (Helfat & Lieberman 2002, 757). Furthermore, founders with industry experience are deemed to have knowledge on the industry and the customer demand (Boeker 1988, 39) Also Bosma et al. (2004, 227) argue that the founders experience in the same industry improves the start-up's performance and chance of survival as well as the success in raising funds (Banerji & Reimer

2019, 22). According to Feeser & Willard (1990, 89) 80 % of the fast-growing companies in Silicon Valley region were operating in markets, in which the founder had worked in before.

As to the points above the following can be predicted:

- **Hypothesis 3:** *The funding success of the company is higher if the founder has worked in the same industry before.*

### **Prior management experience**

The fourth factor that has been identified to influenced the success of the start-up's is **prior management experience of the founder**. Burton (2002, 242) disclosed that Silicon Valley companies that were founded between 1984 and 1994 and whose founders had prior management experience had higher chances of obtaining outside capital. Also, prior management experience of tech ventures founders in New York and New England related positively to the increased performance of the firm (Roure & Madique 1986, 301, Stuart & Abetti 1990, 159). Early-stage investors have also been found to pay close attention to the leadership skills of the founder before investing (Rea 1989, 150, Sudek 2007, 101, Maxwell et al. 2011, 224) This translates into the following Hypothesis:

- **Hypothesis 4:** *The higher the founder's prior management experience, the greater the project's funding success.*

### **Level of education**

Another factor that has been identified to determine the success of the entrepreneur is **the education level**. According to the findings of Ucbasaran et al. (2008, 154), a higher level of education better enables founders to successfully solve problems and make good business development decisions. Education also increases the founder's cognitive skills necessary to adjust to changes (Hatch & Dyer 2004, 1156) fundamental abilities to learn about technology and markets (Shane & Venkataraman 2000, 225) and helps to better develop organizational skills (Grant 1996, 110). Also Sluis et al. (2005, 259) conclude from their meta-analysis, that formal education positively affects entrepreneurship performance and a higher education level

gives the entrepreneur access to a better network that might be useful for developing their firm. Therefore, another hypothesis is put forward to be tested:

- *Hypothesis 5: The higher the university degree, the greater the funding success.*

### **Social Connections**

**Social Connections** also depict a frequently debated factor. Packalen (2007, 881) found, that founders who are socially connected inside a community will more easily be able to obtain resources and founders that had more LinkedIn connections raised more money for their company (Banerji & Reimer 2019, 22). Also Birley (1985, 109) concluded from their start-up study in Indiana, that the main source of access to resources came from the entrepreneurs network. Founders that were employed in well-connected companies had a higher success at generating external funding (Burton 2002, 245). Based on this the following hypothesis is formulated:

- *Hypothesis 6: The higher the amount of LinkedIn connections, the higher the funding success*

### **Co-Founder**

The topic of whether the success of a company is influenced by the existence of a co-founder is widely contested. Tamaseb (2018, 1). reports that 80% of billion-dollar companies launched between 2005-2018 were founded by two or more entrepreneurs Many other studies have concluded that the composition of the founding team shapes the durability of a startup and influences its success, survival and development throughout its lifetime (Beckman & Burton 2008, p.22, Fern et al. 2012, p. 428, Agarwal et al. 2017, p. 19). Hereby, co-creators have been argued to provide the advantage of mobilizing additional key resources and access to a broader network (Howell et al. 2022. p.1). Contrary to this, it has been argued that start-ups with solo founders survive longer and achieve higher long-term revenues, however, co-created startups have been found to receive more funding from investors (Greenberg & Mollick 2018, p.1). Based on these findings, this study gives us the opportunity to investigate the following:

***Hypotheses 7: Projects with Co-Founders achieve higher funding success than projects of solo entrepreneurs.***

## **Gender**

A widely discussed factor that influences funding success is gender. While literature and research has been documenting gender gaps in funding achievements, the topic is still widely contested today. According to Bloomberg, female founders only received 2% of US venture capital funding in 2021 (Chapman 2022, 1). Scholars agree, that male entrepreneurs raise higher amounts of funding than female founders (Kanze et al. 2018, 3), as different funding outcomes based on gender are the result of biased investors choosing to provide higher amounts of capital to male founders (Balachandra et al. 2013, p. 22, Brooks et al. 2014, p. 4429). Even though those factors suggest a funding gap, the magnitude of the disparity remains disputed (Eddleston et al. 2014, 497). For instance, Coleman & Robb (2009, p. 409) as well as Morris et al. (2006, p. 239), concluded that differences in funding success for males and females are due to the female entrepreneurs seeking less capital, and the association of women with businesses that require less capital (Cliff 1998, p. 540, Morris et al, 2006). By focusing on projects funded by several small investors rather than large investment corporations and VCs, we have the opportunity to empirically test the gender funding gap in a crowdfunding scenario and arrive at the hypothesis:

- ***Hypotheses 8: Male founders raise higher amounts of capital than female entrepreneurs.***

## **Spoken Languages**

An additional factor that hasn't been yet explored in this micro context is the connection between the spoken languages of the entrepreneur and the funding success of the project. In the U.S., past research has already concluded that employees who speak multiple languages earn more money than the ones only speaking only one (University of Florida 2000, 1). Furthermore, a Canadian study has shown, that bilingual women earn 6.6% more whilst men earn 3.6% more

(Christofides & Swidinskz 2010, 141). In regards to the importance of effective communication between entrepreneurs and investors, (Peng et al. 2022, 313) found, that the entrepreneurs choice of words critically influences their crowdfunding success. Hence, successful projects on Kickstarter included words in their description that reflected project credibility. With regard to this, we assume that there is value in exploring the impact of the entrepreneur's language capabilities and their influence on funding success. Therefore, the following Hypotheses will be examined:

- *Hypothesis 9: The greater the number of spoken languages, the higher the funding success*

### **3 Empiric Study**

For the empiric part of this scientific work, a quantitative approach was chosen. The quantitative research design follows a deductive logic as the researcher derives testable empirical hypotheses from theoretical proposition in existing research (Neuman, 2014, p. 69). To test the hypotheses, basic secondary data was retrieved from the database kickstarter.com. Through extensive manual data collection on professional online networks like LinkedIn and Xing, the basic data was then complemented with detailed information on each project. Following the structure of an explanative study, the theoretically derived hypotheses were ultimately tested using the collected sample data (Döring & Bortz 2015, 19).

#### **3.1. Data Collection**

In order to evaluate the impact of personal characteristics among different entrepreneurs, it was essential to collect as much data as possible on start-ups and their founders. Because early-stage start-ups and funding platforms are typically privately operated and are not required to publish financial or non-financial data, no publicly available database exists, that is both complete for this purpose and publicly accessible. Consequently, after extensive online research and comparison of various crowdfunding platforms, the researcher eventually decided to initiate data collection by extracting basic data from kickstarter.com (Kickstarter 2022). Kickstarter

was chosen as an appropriate and reliable source for providing the data framework, as it's one of the most dominant and popular crowdfunding platforms in the US. Despite the existence of 1,478 crowdfunding organizations in the US (Crunchbase 2021), Kickstarter not only records the highest number of completed projects from 2014-2021 with 383,218 but is also the platform with the most popular projects, averaging 135 backers per project (TheCrowdDataCentre 2021).

### **3.2. Sample**

The initial data that was extracted from Kickstarter.com included the name and Kickstarter project link of 5108 listed projects across all project categories in the period from 2010-2022, their fundraising goal, their pledge and their backer's count. To ensure country and industry specific results, the sample focuses on projects in the design category in Germany. This reduced the sample to 588 entries. Germany was specifically chosen as the focus of geographical context, as it's usually overlooked but yet interesting, due to its highly active start-up ecosystem. With being both, Europe's largest economy and biggest market, Germany plays a crucial role in the European start-up scene (GTAI 2022, 1). Furthermore, the German start-up system is ranked as the best European country for startups in 2020 (EU Business School 2020, 1) and the world's number 6 in leading innovation hubs (Startup Blink 2022, 1). While Germany appears to be one of the strongest countries for enabling entrepreneurship, the researchers' personal aspiration to create a start-up in Germany represented a further reason for choosing this geographic context. The design industry was specifically chosen with regard to the researcher's personal interest and being the largest category on Kickstarter, featuring 49,975 design projects as of today. To ensure the credibility of the projects and the quality of the data, only projects with a fundraising goal above 2000 USD were considered to proceed with. To eliminate unrepresentative outliers, the top 1% and the bottom 1% of the data were excluded from the sample. After filtering the data with these criteria, the sample included 441 entries of which 401 represented successful projects and 40 failed projects. To complement the data from

Kickstarter, the researcher conducted extensive manual searches via Google search, Linked-in and Xing. LinkedIn and Xing both constitute professional networks in which users can create a profile, showing their professional experiences in the form of an online resume. Hereby, for each of the 441 projects, the researcher first aimed to find the project founder's names and then collected information about each of the founder's and co-founder's (if applicable) personal background. This information included the founders name, their nationality, their gender, their age, the spoken languages, the number of Linked-In connections, their highest degree, the number of years studying in higher education, the prior job before founding and the years of prior work experience. While conducting the background checks on all the 441 projects, it was oftentimes very challenging to identify the founder & co-founder as most projects were not yet officially listed on the web and many founder did not appear in Linked-In searches. This considerably influenced the success rate in being able to retrieve the required data and furthermore reduced the sample of identified project founders to 247 of which 224 are successful projects and 23 are failed.

### **3.3 Data Preparation and Coding**

After the data collection was completed, it was organized and categorized in Microsoft Excel. Furthermore, the researcher checked for typing errors and data collection errors. Before examining the data and testing the hypotheses, the raw data had to be coded systematically. The collected data included (1) **nominal qualitative data** like gender, nationality, spoken languages, type of degree, prior work experience as well as (2) **binary qualitative data** as, if the project had a cofounder, if the founder had < or > 500 LinkedIn connections, whether the project was successful or not and (3) **continuous quantitative data** like age, number of spoken languages, the number of years studying in higher education, years of prior work experience, the projects backers count, the pledge per backer, the total pledge in USD and the % in which the pledge exceeded the goal. The quantitative data was left as collected, and the qualitative

data was coded with creating a (0,1) indicator variable (Pennsylvania State University 2022, 1). For gender, the indicator variable took on the value 0= for male and 1= for female, for Nationality, 0= Non-German 1=German, for languages spoken the data was coded with 0= no English is not spoken 1= yes, English is spoken, 0= no, German not spoken 1= yes, German spoken. The degree of the founder was classified into 4 categories including high school degree, bachelor's degree, master's degree and PhD, whereby each of the degrees were separately coded using the indicator variable as 0=no 1=yes. Initially 13 fields of study in the highest degree were identified amongst all founders. Those 13 fields were then clustered into six overarching areas for the regression analysis, whereby 1: Business, Law & Politics, 2: Design & Architecture, 3: Engineering & Computer Science, 4: Medicine, Physio & Psychology, 5: History, Tourism, Language, 6: Only High School were each coded with an individual indicator variable 0=no, 1=yes, to reach a more nuanced conclusion in the analysis. For the founder's prior jobs before founding the company, three variables were created: Prior founding experience, Prior Industry experience, Prior Management experience that were all coded using 0=no 1=yes. Whether the project had a co-founder was coded using 0=no and 1=yes and the LinkedIn connections were coded with 0= if the entrepreneur had <500 connections and with 1= if he or she had >500 connections. The publicly accessible data on Linked-In only allowed the researcher to use this classification as only "500+" is displayed for connections above 500 rather than the concrete number. All variables are presented in [Table 2](#) in [Appendix 3](#).

### **3.4 Data Analysis**

For the analysis of the data, several correlation coefficients were examined ([Appendix 4](#)). As the data included both, rank ordered data (0= no 1=yes) as well as numerical data, the researcher decided to conduct the **Spearman's rank correlation coefficient (rs)** and a **Pearson correlation coefficient (r)** analysis. To extend the analysis and provide deeper insights, a **linear regression analysis** was run afterwards. All analyses were run in IBM SPSS Statistics.



All five collected dependent variables ([Appendix 3](#)) were evaluated for the use in the statistical model. With regards to the scope of this paper and with the objective to obtain the most accurate results, the researcher decided to run the statistical tests with one dependent variable: “pledge exceeding goal”. This variable best represents the projects funding success and includes enough variation, allowing it to capture trends better than i.e. the dichotomous variable “Project State”. Furthermore, due to the “all or nothing mentality” on Kickstarter, there is a risk that for projects that are very close to reaching their goals, the creator himself invests the remaining amount to reach the goal and receive the funds (Stadler et al. 2015, p. 1249). Hence, many projects might just reach their goals, but comparatively less exceed the goals by far. For each of the nine hypotheses, a separate regression was carried out including the dependent variable, the independent variable, and the control variables. This provided a higher statistical power as the data limitation showed that there were too little observations to include all variables in one single regression. To control for year effects, that might have influenced the success of the project (economic cycles, Covid-19), a fixed year effect in form of a dummy variable (0=pre covid, 1= (post) covid) was included. Furthermore, the funding goal was added to control for the projects size, as the likelihood of success might also be closely tied to the project's size.

### **3.4.1 Bivariate Analysis**

**The Spearman’s Correlation coefficient (rs)** "is a nonparametric measure of rank correlation" and determines a monotonic relationship ( $-1 \leq r \leq 1$ ) between two continuous or ordinal variables, while being based on the variables rank value rather than the raw data (Ramzai 2020, 1). It evaluates how well an arbitrary monotonic function can express the correlation between two variables while making no presumptions on the frequency distribution of the variables (Hauke & Kossowski 2011, 89). To indicate the strength of the correlation  $0.90 \leq |rs| < 1$  was used to indicate a very strong,  $0.70 \leq |rs| < 0.89$  was used to indicate a strong,  $0.4 \leq |rs| < 0.69$

was used to indicate a moderate and  $0.1 < |rs| < 0.39$  was used to indicate a weak monotonic correlation (Schober et al. 2018, p. 1765, Andrés-Sánchez et al. 2021, 4).

**The Pearson Correlation Coefficient (r)** measures the linear correlation between two continuous variables and shows the magnitude and degree of the relationship (Dancey & Reidy, 2020, 176). Depending on the strength of the linear relationship, the coefficient has a value between  $-1 < |r| < 1$  whereby  $r = +1$  indicates a perfect positive relationship,  $r = 0$  no linear relationship and  $r = -1$  indicates a perfect negative relationship (Dancey & Reidy, 2020, 182). In contrast to the Spearman's Correlation, the Pearson's Correlation Coefficient only evaluates a linear relationship between two continuous variables whereby a linear relationship is only existing when a change in one variable is associated with a proportional change in the other variable (Ramzai 2020, 1). To indicate the strength of the linear correlation the same scale as for Spearman was used (see above).

### **3.4.2 Regression Analysis**

Running a **linear multiple regression** offered the possibility to perform the analysis including several independent factors and to quantify their influence on the dependent variable (Sykes 1993, 8). Ultimately it also defines the relationship between the variables in a more detailed way, using an equation (Stevens 2022, 1). By evaluating the results of the regression, the share of the predictor on the criterium it is known and can be applied to predict the outcome of new data (Dancey & Reidy, 2020, 380). The correlation coefficient  $R$  can take values between  $-1$  and  $+1$ , whereby a value of  $+1$  describes a perfect positive correlation between the two variables, while a correlation of  $-1$  describes a perfect negative correlation (anti-correlation) (Cohen, J., 1988, p. 389). Hereby,  $|R^2| = .02$  indicates a low / weak variance clarification,  $|R^2| = .13$  indicates a medium / moderate variance clarification,  $|R^2| = .26$  indicates a high /strong variance clarification (Cohen, J., 1988, p. 412 ff).

## 4 Results

The following chapter is divided into three sections. The results from the descriptive statistics, the results from the correlation analysis and the results from the regression analysis.

### 4.1 Descriptive Analysis

The descriptive statistics included Standard Deviation (SD), central tendency (mean, mode, median), Maximum and Minimum values of the 17 variables and are summarized in [Appendix 5](#). As seen in [Table 5](#) most of the founders (91.9%), launching a Kickstarter project in Germany, were German, whereas (8.9%) belonged to other nationalities. The gender composition of the sample revealed that (89.8%) were male and (10.2%) were female founders ([Table 6](#)) and most of the respondents belonged to 33 years of age, where the youngest founder was 21 and the oldest 68 years old ([Figure 2](#)). Descriptive Statistics for the languages spoken reveal an overall mean score of 2.44 languages (SD=0.995). Majority of the sample, 63% of the founders, spoke at least two languages, 18.3% spoke three languages ([Figure 3](#)). As regards to the highest degree, (41.1%) have a Bachelor's degree, (30.9%) hold a Master's degree, (11%) graduated from high school and (4.9%) hold a PhD ([Table 7](#)), whereby the average of founders has spent 4.89 years in higher education ([Figure 4](#)). The most common field of study was Business and Economics (29,3%) followed by Design (19.1%) and Engineering (14.6%) ([Table 8](#)). Results on prior experiences show that only 10.6 % had prior founding experience, 32.9% had prior industry experience and 21.1% had prior management experience ([Table 9,10,11](#)). In terms of work experience in years, most of the founders (31.3%) did not have any prior work experience and 8.1% had 2 years of work experience ([Figure 6](#)). Regarding the presence of a co-founder in the project, only 23.6% of projects had a co-founder, whereas most projects (76.4 %) were only founded by one person ([Table 12](#)). Results on social connections of the founders showed that 61% had less than 500 connections whereas 39% had more than 500 connections ([Table 13](#)). Regarding the project outcome, 90.2% of the projects were successful and 9.8% failed ([Table 14](#)). In terms of the backers count, the overall mean score was 649.29 backers per project

(SD=1681.6). The backers count reaches from minimum values of (0) to maximum values of (15998). The average pledge per backer is 152.9 USD but ranged from 0 USD to 1418.39 USD per backer. Regarding the total pledge per project, the mean lays at 79,478.1 USD. The percentage describing the pledge exceeding the goal has its mean at 531% and across all projects there were very different outcomes reaching from 0% to 7814%. For more detailed information and visual representations please see [Appendix 5](#).

#### **4.2 Bivariate Correlation Analysis**

The following examines the relationships between the variables using Pearson's Correlation and Spearman's rank correlation analysis. [Figure 7](#) presents the respective correlation coefficient for the variables. As seen in figure 7, the gender of the founder is significantly weak negative correlated with the pledge exceeding the funding goal (Pledge/Goal) ( $r_s(241) = -.147, p=0.022$ ). Speaking to Hypotheses 7, it seems that male entrepreneurs were more successful in exceeding their funding goal. Results of the Pearson correlation indicate a significant weak positive correlation between years of education and the Pledge/Goal ( $r(213) = .233, p<.001$ ) and a significant weak positive correlation between Degree and Pledge/Goal ( $r(212) = .175, p=0.01$ ). There was also a significant weak negative correlation between School Degree and the Pledge/Goal ( $r(219) = -.154, p=0.023$ ). In regard to Hypotheses 5, it seems that the higher the degree, the more the pledge was exceeding the goal and indicating that only having a School degree as the highest education level, negatively affected the outcome. A significant weak positive correlation could also be seen between the presence of a Co-Founder in the project and the Pledge/Goal ( $r_s(241) = .218, p<0.001$ ), indicating that the presence of a founder positively influenced the projects outcome in exceeding the funding goal.

#### **4.3 Multivariate Regression Analysis**

Nine separate multiple linear regressions were used to test if the independent variables in [Figure 8](#) significantly predict the project success, defined by the total pledge received exceeding the

funding goal (Pledge/Goal). As mentioned above, each regression included the dependent, the independent and the two control variables. The results from the Linear Regressions ([Appendix 9](#)) show, that at the  $p < 0.1$  significance level, “**PhD**” significantly predicted Pledge/Goal ( $\beta = 7.385$ ,  $P = 0.066$ ). At the  $p < 0.05$  level, “**Medicine, Physiotherapy & Psychology Degree**” significantly predicted Pledge/Goal ( $\beta = 12.585$ ,  $P = 0.009$ ) and “**Project has Co-Founder**” significantly predicted Pledge/Goal ( $\beta = 7.015$ ,  $P = 0.001$ ). At the  $p < 0.1$  level, “**Gender**” significantly predicted Pledge/Goal ( $\beta = -4.311$ ,  $P = 0.072$ ). These findings provide evidence to support Hypotheses 5, 7 and 8. The results also showed that the remaining independent variables were not statistically significant. Therefore, there is no evidence to support H1, H2, H3, H4, H6 & H9.

## **5 Discussion of the results**

### **5.1 Key Findings**

The goal of the study was to gain insights into whether biographical characteristics of founders also influence the projects funding success in crowdfunding campaigns. While findings in literature suggest, that biographical characteristics can influence a start-up's success, this study aims to investigate if these biographical characteristics also influence how much capital entrepreneurs raise in crowdfunding campaigns. The overall statistical model suggests that three of the examined biographical characteristics play a significant role in crowdfunding success ([Appendix 10](#)), while 6 of the examined characteristics have found to not significantly predict crowdfunding success. Below, we will discuss the findings for each hypothesis. Complementing the results of the correlation analysis, the regression model confirms that there is not enough evidence to support H1. This contradicts our assumptions and implies that the founders' years of prior work experience does not significantly influence the project's crowdfunding success. Hence, prior work experience might have an impact on the founder's overall knowledge and skills (Agarwal et al. 2004, 503) but does not necessarily influence

whether he or she is launching a successful campaign. Equally, H2, H3 and H4 have to be rejected, as prior founding, prior industry and prior management experience of the founder did not determine whether the founder's project was successful. In fact, 89,4% of the sample have started a Kickstarter campaign without having launched a company before, 78,9% have not collected prior management experience before and 67,1% did not work in the same industry before. Regarding H5, two findings can be reported. Firstly, while holding a Bachelor's and Master's degree did not affect the projects funding success, founders with a PhD degree were more successful in exceeding their funding goal. This partly supports H5, stating that a higher university degree implies greater funding success. However, it must be noted that this only applies to the PhD and not the other degrees. This is also in line with the findings of the correlation analysis. As discussed in literature, a higher education level might equip the individual with a greater amount of theoretical knowledge (Ucbasaran et al. 2008, 154). The fact that only founders with a PhD have been significantly more successful adds to existing knowledge and provides an interesting starting point for future research, to further examine the positive impact of specifically doing a PhD. Secondly, founders that studied in the field of medicine were significantly more successful in exceeding their funding goal. This is an interesting finding, which may however be biased by the small sample size of this degree, as only 2.4% of the sample studied in a field of medicine. All the other examined degree fields did not show any significant impact. Contrary to H6 and the existing belief that well-connected entrepreneurs record higher funding successes (Burton 2002, 245), the results show that the number of LinkedIn connections do not have an impact the creators crowdfunding success. Therefore, we have no evidence to accept H6. This finding may be biased as the sample only included entrepreneurs in the design industry. As to LinkedIn statistics from 2021, the top 10 industries in which LinkedIn users work concentrate around Technology and Software, Management and Health Care, suggesting that LinkedIn might not be widely used by people in

the creative industry (Cruz 2021, 1). Regarding H7, a third finding can be reported. The model revealed that the existence of a Co-Founder in the project, increased the chances of the project exceeding the goal. This is consistent with the results of correlation coefficients and existing research indicating that co-founded startups receive more funding from investors (Greenberg & Mollick 2018, 1). This might be the case as co-creators might mobilize additional key resources and provide access to a larger network (Howell et al. 2022. p.1, Agarwal et al. 2017, p. 19). Therefore, we can accept H7. The fourth finding regards the gender of the founder. According to the model, male entrepreneurs are significantly more successful in exceeding their funding goal than females. Based on this, H8 can be accepted. This is also supported by the findings of the correlation analysis and previous research that currently widely contests the existence of a gender funding gap. While some literature argues that different funding successes could be the consequence of women seeking less capital (Cliff 1998, p. 540, Morris et al, 2006), our sample shows, that funding goals of male entrepreneurs averaged around 19 896€ being 5% higher on average than those female entrepreneurs averaging around 18 807€. This generally confirms previous findings of men seeking more capital than women, though the 5% difference does not appear to be very large. It makes sense to further investigate whether the funding gap could be due to different personal and social responsibilities of women and men (children, family obligations), individual factors (self-confidence, motivation) (UBS 2022) or simply biased investors (Brooks et al. 2014, p. 4429). Furthermore, the results might be biased by more males having created a campaign on Kickstarter in the first place compared to women. As for the sample, about 90% of the creators are male and only 10% are female. While, the funding gap remains, it might be interesting to investigate why fewer women participated in a crowdfunding campaign on Kickstarter in the first place. Ultimately, H9 needs to be rejected as no significant association between the number of languages spoken and the funding success was found. For a coherent overview please see [Figure 10](#).

## **5.2 Critical reflection**

When critically reflecting on the results, it becomes evident, that the majority of the investigated biographical characteristics do not influence the crowdfunding success of the project's. The reason for this could be that there are many factors that influence the success of a project, and biographical characteristics are not necessarily the most important when it comes to the success of a crowdfunding project. In trying to make sense of the findings, we revisited the current discussion in literature and found that other factors, for instance time-series events, have been argued to have a greater impact on crowdfunding success than social determinants (Etter et al. 2014,179). Hereby, project success can depend on the timing of the launch, whether it was a weekend or weekday, how many other projects were launched at the same time, and how many users were active on the platform (Etter et al. 2014, 179, Janku & Kucerova 2018, 351, Koch & Siering 2019, 674). Others argue that investment decisions are based on the information the pledgers have at hand (presentation of information project website) (Koch & Siering 2019, 674) and investment decisions are often the result of irrational decision making and emotions (Thaler 2005, 546). Moreover, the projects basic frame characteristics set by the founder (the projects listed funding period or the funding goal) might play a role. If the goal amount is too high, it is difficult to be reached, if it's too low people might not believe in the value of the idea (Huang et al. 2022, 1801). Smaller funding periods might signal confidence and motivate people to invest whereas more time offered backers more time to procrastinate (Janku & Kucerova, 2018, 356). The main implication of these and our findings is, that it is valuable to examine other critical factors critical to the success of a crowdfunding project, regardless of the characteristics of the founder.

## **5.3 Implications**

The study provides new insights into the relevance of founder's biographical characteristics on their projects crowdfunding success. Some of the results support existing theories that are



widely accepted in the entrepreneurial research, while others do not fit with the status quo. While the results are relevant for several stakeholders, the two most relevant two groups are 1) early-stage entrepreneurs 2) entrepreneurial financing academics. The most significant implications for early-stage entrepreneurs are the following. Pursuing a degree in higher education is useful. Especially if the founder decides to pursue a PhD, this has proven to have a positive effect on the projects funding outcome. The study furthermore provides insights into important fields of education and suggests that pursuing a medical degree helps founders in achieving funding success. Furthermore, entrepreneurs shall consider launching a project with a co-founder, as the study revealed that projects of a founder team were more successful in exceeding their funding goal than solo entrepreneurs. For academics, it is crucial to recognize the evidence on the gender funding gap found in this study, as the findings underscore the importance of further research on female and male entrepreneurs in terms of comparable funding success in early-stage startup financing. Furthermore, the study suggests, that there is value in exploring the impact of biographical characteristics in a different setting. Future research should therefore investigate further biographical factors that might have an impact on their funding success and look at additional factors, that are closer related to skills of the founder to set up an appealing campaign or time-series factors of the campaign.

## **6 Conclusion**

### **6.1 Limitations**

The influence of biographical characteristics on the success of start-ups is already well researched. This work was able to contribute some findings of these factors in a crowdfunding setting. However, the validity of the findings is limited due to the restriction of projects in a crowdfunding setting, in the design industry. Hence, findings do not provide insights into the “minds” of professional investors but rather small, private investors, that might have different incentives than merely maximizing their return (i.e. rewards for pledge, like early product access). Furthermore, the design industry represents a creative setting, in which products or

service features might be more important than the background of the founder which can be associated with his or her ability to maximize the projects profitability. Since this research focuses on early-stage entrepreneurship in Germany, there also might be a local bias, making the findings not applicable to other countries. Further limitations could be identified in the data collection process as the reliability of LinkedIn as a data source could be questionable. LinkedIn profiles are managed by the users themselves and therefore might provide false or missing information in their profile, leading to possibly inaccurate and missing data points. Since the research also focused on crowdfunding projects, that were no registered companies yet, it was very difficult to identify founders and the manual data collection was very time intensive. In the regression analysis there might be certain limitations too. Essentially, a statistical power concern is the large number of hypotheses and variables opposed to the small sample size. Therefore, there is a need to expand upon the sample to obtain more accurate insights on the effects of founder's characteristics on the project outcome. As the research looks at crowdfunding projects, there was also a high variation in funding amounts between the projects, which led to data being very spread out and possibly affecting the analysis. It also remains questionable whether the empirical evidence presented here can also be applied on other forms of crowdfunding. Initial studies in this area indicate that the same patterns are not always present in various forms of crowdfunding and that the findings of this paper do not necessarily have to have general validity (Kuppuswamy & Bayus 2014, p. 21).

## **6.2 Future research**

As the findings are only applicable to projects in the design industry, future research should consider projects from several industries, to get a broader picture, and see if there are differences across the industries. Furthermore, it would be of great interest to compare the importance of biographical characteristics on crowdfunding success across different countries. With regards to the results, it would also make sense to change the way of data collection and not solely rely on information published on Linked-In. It is suggested to dig deeper and

understand the founders and the projects characteristics by launching a survey, to understand more factors related to the project itself and get a more truthful background on the skills of the founder. In terms of the statistical model, we suggest future research to focus on two possible areas. First, to keep the focus on crowdfunding success, increase the sample size and include a broader variety of variables that might influence the crowdfunding success. For instance, project-site specific variables like length of description, number of pictures, emotional targeting, rewards provided and time series variables (i.e. length of campaign) can be included to investigate whether they can better be associated funding success. Second, as findings obtained in the crowdfunding setting cannot be readily applied to other funding areas (i.e. VC funding), we propose future research to examine whether biographical characteristics of founders are more relevant in other contexts of entrepreneurial financing.

### **6.3 Summary and Outlook**

In recent years, crowdfunding platforms that offer entrepreneurs the opportunity to present their ideas and connect to potential investors have become an important part of early-stage entrepreneurial financing. The goal of this work was to provide answers to the question of whether biographical characteristics of founders have an influence on the crowdfunding success of their projects. Since only few studies focus specifically on the impact of biographical characteristics on funding success, this paper built on existing research and aimed to answer the question whether the identified characteristics are also relevant in a crowdfunding setting, measuring the start-up's funding success. In total, nine influential factors could be identified in the current state of research, which formed the basis for the development of nine hypotheses. The Hypotheses were then answered based on the results from the data analysis. The analysis was built on hand collected data of 247 design projects in Germany, listed on the Kickstarter platform from 2010-2022. For all of these projects, founders and co-founders were identified and their personal information was manually collected on professional networks. Once the data

was collected and coded, it was analyzed using a correlation and regression model. From the results, the work was able to gain some insights into the relationship between crowdfunding success and biographical characteristics. Essentially, it was found that the type of the founder's educational degree matters. Founders who acquired a PhD and founders holding a medical degree were found to be more successful than founders with an alternative degree. A second finding relates to the project's team. Projects that were founded by a team, including co-founder were more successful in exceeding their fundraising goal than projects run by a solo founder. Our third finding provides evidence for a gender-funding gap and shows that male entrepreneurs are more successful in exceeding their funding goal. The most important implications from this study are, that the founders background can have an impact on their funding success. Critically speaking however, a broad range of other factors might be just as important. These can include campaign-related factors such as the timing, visuals, or rewards offered that contribute to whether or not people invest in the project. Therefore, the question should be framed to explore **what skills can be leveraged from the founder's background to create an engaging campaign and appeal to investors**. We propose to further explore this issue in future research, and, instead of collecting data online, design a questionnaire to be distributed to crowdfunding campaign creators. This could help gain deeper insights into their thinking when creating the campaign, and perhaps more accurate information about their personal background than professional networks can provide. On a forward looking note, exploring the funding success of start-ups is a very promising and current subject. Supporting the creation of more startups through investment, specifically in Germany, could generate a total value of 2.3 trillion euros and produce 1.44 million jobs by 2030 - almost double the current rate of creation and success (León et al. 2021, p.1). Successful start-up funding will therefore not only accelerate the evolution of early-stage entrepreneurship but will also be crucial for the future economic development as a whole.

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## Appendix

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## Appendix 1: Incentives for investors of crowdfunding projects



Figure 1: Four types of crowdfunding. (Based on: Johnson 2022; Jason 2019; Detweiler 2021)

## Appendix 2: Overview of literature review

Factor	Study
Prior Work Experience	(Baptista, Karaöz, and Mendonça 2013), (Starr and MacMillan 1990) (Stinchcombe 1965) (S. Shane and Venkataraman 2000) (Agarwal et al. 2004)
Prior founding experience	(Ucbasaran, Wright, and Westhead 2008) (McGrath and Macmillan 2000) (Gompers et al. 2006) (Banerji and Reimer 2019) (Prohorovs, Bistrova, and Ten 2018)
Prior Industry experience	(Boeker 1988) (Helfat and Lieberman 2002) (Bosma et al. 2004) (Banerji and Reimer 2019)
Prior Management Experience	(Burton 2002) (K. Eisenhardt and Schoonhoven 1996) (Roure and Madique 1986) (Stuart and Abetti 1990) (Colombo, Delmastro, and Grilli 2004) (S. Shane and Venkataraman 2000) (Rea 1989) (Sudek 2007) (Bernstein, Korteweg, and Laws 2017) (Maxwell, Jeffrey, and Levesque 2011)
Education Level	(Hatch and J. Dyer 2004) (S. Shane and Venkataraman 2000) (Grant 1996) (Ucbasaran, Wright, and Westhead 2008) (Sluis, Praag, and Vijverberg 2005)
Social Network	(Aldrich and Fiol 1994) (Birley 1985) (Shane and Cable 2002) (Packalen 2007) (Burton 2002) (Banerji and Reimer 2019)
Co-Founder	(Agarwal et al, 2017), (Beckman & Burton 2008), (Fern et al. 2012), (Greenberg & Mollick, 2018), (Howell et al., 2022), (Tamaseb 2018)
Gender	(Balachandra et al. 2013) (Brooks et al. 2014) (Coleman & Robb 2009) (Cliff 1998) (Eddleston et al. 2014) (Kanze et al. 2018) (Morris et al, 2006)

Table 1: Identified biographical factors of founders that influence the success of their start-up, overview of 47 studies (own illustration)

### Appendix 3: Variable overview, SPSS input coded variables

Variable	Variable Type	Data Type	SPSS Measure	Value Range
1 Nationality	Independent	Binary	Nominal	0=Non-German 1= German
2 Gender	Independent	Nominal	Nominal	0= Male, 1=Female
3 Age	Independent	Nominal	Scale	21- 68 years
4 Languages spoken	Independent	Nominal	Ordinal	1-6 languages spoken
			Nominal	0= German not spoken 1= German spoken
			Nominal	0= English not spoken 1= English spoken
5 Highest Degree	Independent	Nominal	Ordinal	0-3 degrees, 0 = HS, 1= BA, 2= MA, 3= PhD
			Binary	Nominal
		Binary	Nominal	0= no Bachelors Degree 1= Bachelors Degree
			Nominal	0= no Masters Degree 1= Masters Degree
			Nominal	0= no PhD 1=PhD
6 Field of Degree	Independent	Binary	Nominal	0= no Business, Law, Politics 1= Business, Law, Politics
				0= no Design, Architecture 1= Design Architecture
				0= no Engineering, Comp. Sc. 1= Engineering, Comp. Sc.
				0= no Medicine, Physio, Psyc. 1= Medicine, Physio, Psyc.
				0= no History, Tourism, Lang. 1= History, Tourism, Lang.
7 Founding experience	Independent	Binary	Nominal	0= no 1= yes
8 Industry experience	Independent	Binary	Nominal	0= no 1= yes
9 Management experience	Independent	Binary	Nominal	0= no 1= yes

10 Years of work experience	Independent	Ratio	Scale	0-27 years
11 Co- Founder	Independent	Binary	Nominal	0= no 1= yes
12 LinkedIn Connections	Independent	Binary	Nominal	0= <500 1= >500
13 Project Outcome	Dependent	Binary	Nominal	0= failed 1= successful
14 Backers Count	Dependent	Ratio	Scale	0-15,998 backers
15 Pledge per backer	Dependent	Ratio	Scale	0 - 1418.39 USD
16 Total pledge in USD	Dependent	Ratio	Scale	0 - 3,390,551.00 USD
17 Pledge exceeding goal	Dependent	Ratio	Scale	0% - 7815% <i>converted to absolute numbers</i> 0.00-78.15

Table 2: Analysis Variables. Overview Table, incl. coded data (own illustration)

#### Appendix 4: Types of examined correlation coefficients

Correlation coefficient	Relationship	Measurement	Distribution
<b>Pearson's r</b>	Linear	Two quantitative (interval or ratio) variables	Normal distribution
<b>Spearman's rho</b>	Non-linear	Two ordinal, interval or ratio variables	Any distribution
<b>Point-biserial</b>	Linear	One dichotomous (binary) variable and one quantitative (interval or ratio) variable	Normal distribution
<b>Cramér's V</b>	Non-linear	Two nominal variables	Any distribution
<b>Kendall's tau</b>	Non-linear	Two ordinal, interval or ratio variables	Any distribution

Table 3: Types of Correlation Coefficients (Bhandari 2021)

#### Appendix 5: Results from the descriptive Statistics

Variable	Mean	Median	Mode	SD	Min	Max
1 Nationality	0.91	1.00	1	0.286	0	1
2 Gender	0.10	0.00	0	0.303	0	1
3 Age	36.49	35.00	33	7.137	21	68
4 Languages spoken	2.44	2.00	2	0.995	1	6
5 Highest Degree	1.34	1.00	1	0.767	0	3
6 Field of Degree	2.45	1.00	0	3.160	0	13
7 Founding experience	0.11	0.00	0	0.308	0	1
8 Industry experience	0.33	0.00	0	0.471	0	1
9 Management experience	0.21	0.00	0	0.409	0	1
10 Years of work experience	5.25	3.50	0	5.761	0	25
11 Co- Founder	0.24	0.00	0	0.425	0	1
12 LinkedIn Connections	0.39	0.00	0	0.489	0	1

13 Project Outcome	0.90	1	1	0.297	0	1
14 Backers Count	649.29	195	93	1681.6	0	15998
15 Pledge per backer in USD	152.9	105.5	1	194.8	0	1418.39
16 Total pledge in USD	79,478.1	23,253.8	0.00	259,53	0	3390551
17 Pledge exceeding goal (in %)	531%	169.53	0.00	1135.3	0%	7814%

Table 4: Descriptive Statistics of the variables (own illustration)

## Nationality

0= Non-German 1= German	Frequency	Percent
0	22	8.9%
1	224	91.1%
Total	246	100%

Table 5: Overview of the samples' nationality (own illustration)

## Gender

0=Men 1= Women	Frequency	Percent
0	221	89.8%
1	25	10.2%
Total	246	100%

Table 6: Overview of the samples' gender (own illustration)

## Age

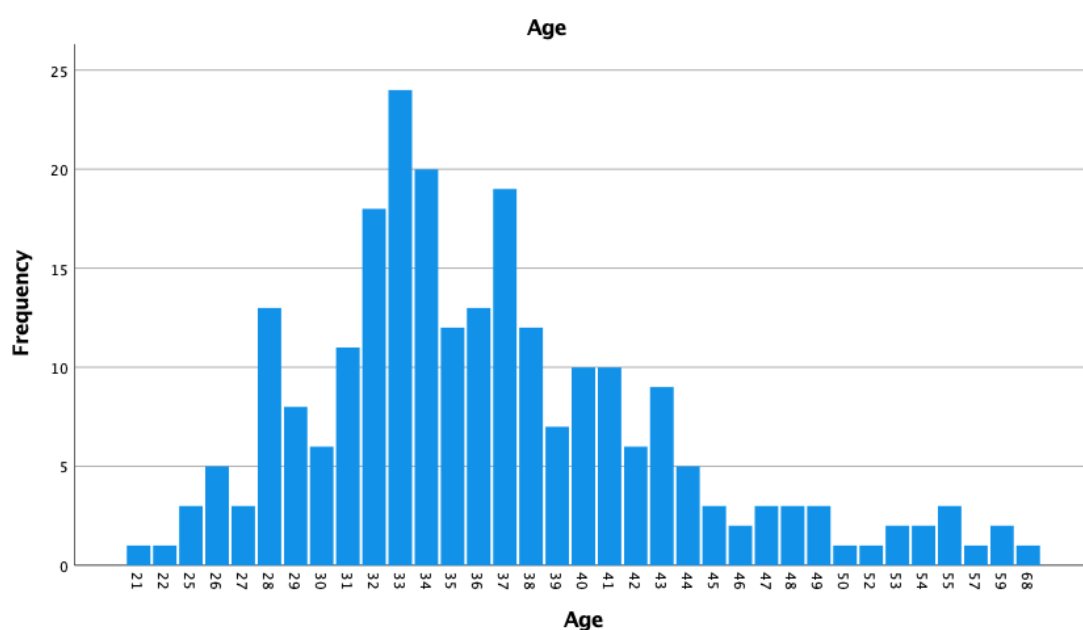


Figure 2: Overview of the samples' age (own illustration)

**Languages spoken**

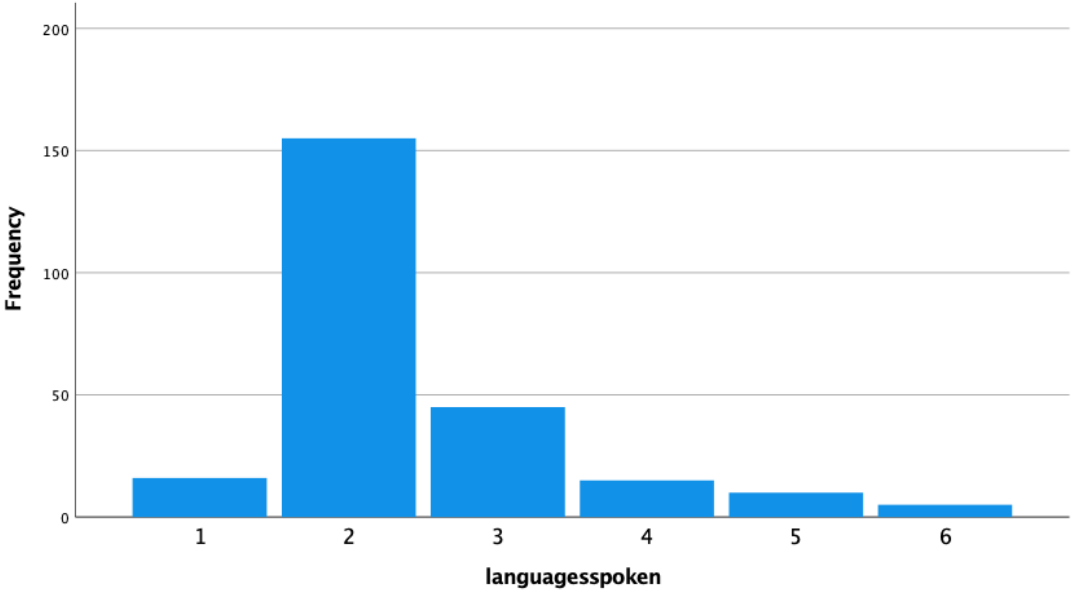


Figure 3: Overview of the samples' spoken languages (own illustration)

**Education in years**

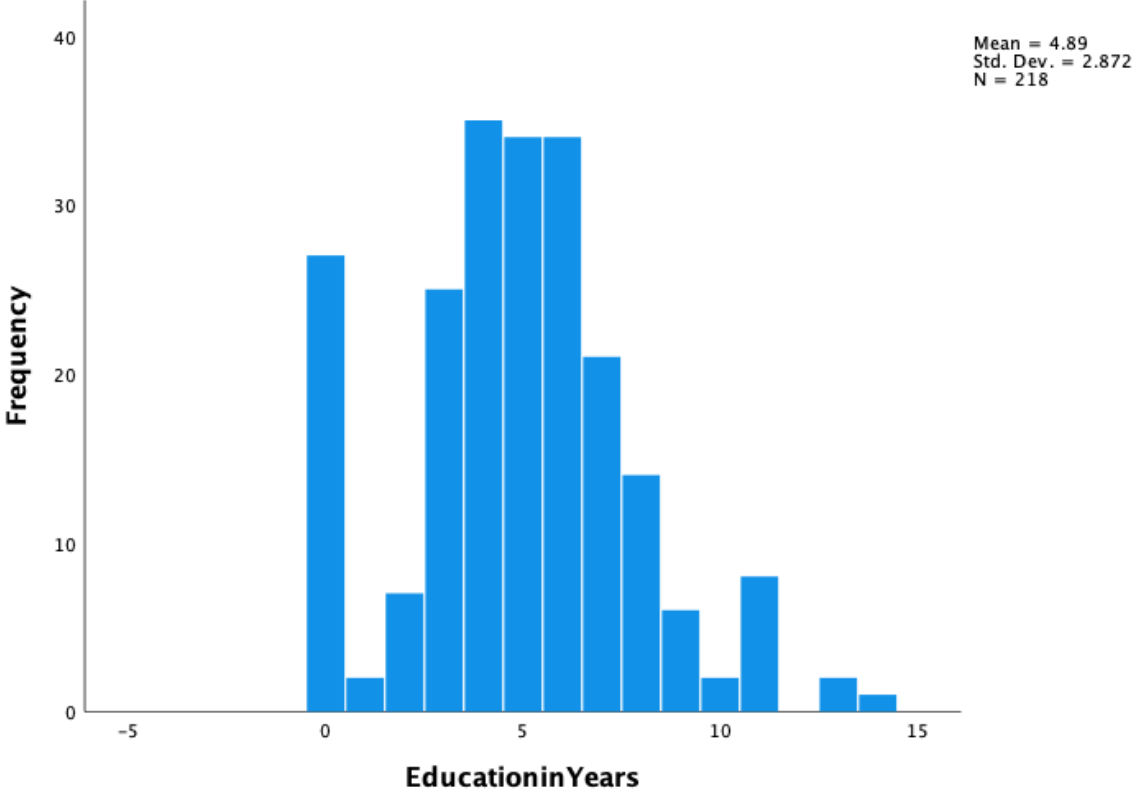


Figure 4: Overview of the samples's years in education (own illustration)



## Degree

Degree	Frequency	Percent
0 (=School)	<b>27</b>	<b>11%</b>
1 (=Bachelor's Degree)	<b>101</b>	<b>41.1%</b>
2 (=Master's Degree)	<b>76</b>	<b>30.9%</b>
3 (=PhD)	<b>12</b>	<b>4.9%</b>
<i>Missing</i>	<b>30</b>	<b>12.2%</b>
<b>Total</b>	<b>246</b>	<b>100%</b>

*Table 7: Overview of the samples' Degree (own illustration)*

Degree Field	Frequency	Percent
0 (= Business, Econ)	<b>72</b>	<b>29.3 %</b>
1 (= Design, Arts)	<b>47</b>	<b>19.1 %</b>
2 (= Engineering)	<b>36</b>	<b>14.6 %</b>
3 (= Medicine)	<b>4</b>	<b>1.6 %</b>
4 (= Law)	<b>2</b>	<b>0.8 %</b>
5 (=Politics)	<b>2</b>	<b>0.8 %</b>
6 (=Psychology)	<b>1</b>	<b>0.4 %</b>
7 (=High School)	<b>27</b>	<b>11 %</b>
8 (=History)	<b>1</b>	<b>0.4 %</b>
9 (= Computer Science)	<b>10</b>	<b>4.1 %</b>
10 (=Languages)	<b>1</b>	<b>0.4 %</b>
11 (=Architecture)	<b>3</b>	<b>1.2%</b>
12 (=Physiotherapy)	<b>1</b>	<b>0.4 %</b>
13 (=Tourim)	<b>1</b>	<b>0.4%</b>
<i>Missing</i>	<b>38</b>	<b>12.2%</b>
<i>Total</i>	<b>246</b>	<b>100%</b>

*Table 8: Frequency table on the samples' degree field (non-categorized) (own illustration)*

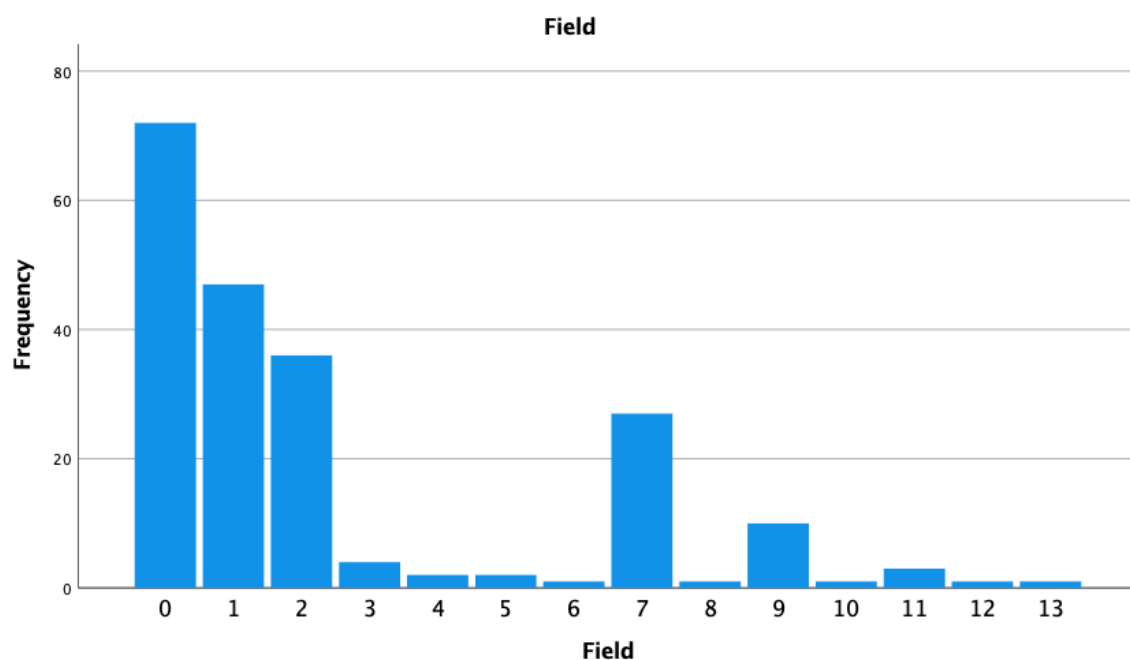


Figure 5: Overview of the samples' degree field (own illustration)

### Founding Experience

Founding Experience	Frequency	Percent
0 (=no)	<b>220</b>	<b>89.4%</b>
1 (=yes)	<b>26</b>	<b>10.6%</b>
<b>Total</b>	<b>246</b>	<b>100%</b>

Table 9: Overview of the samples' founding experience (own illustration)

### Industry Experience

Industry Experience	Frequency	Percent
0 (=no)	<b>165</b>	<b>67.1%</b>
1 (=yes)	<b>81</b>	<b>32.9%</b>
<b>Total</b>	<b>246</b>	<b>100%</b>

Table 10: Overview of the samples' industry experience (own illustration)

### Management Experience

Management Experience	Frequency	Percent
0 (=no)	<b>194</b>	<b>78.9%</b>
1 (=yes)	<b>52</b>	<b>21.1%</b>
<b>Total</b>	<b>246</b>	<b>100%</b>

Table 11: Overview of the samples' management experience (own illustration)

## Years of prior work experience

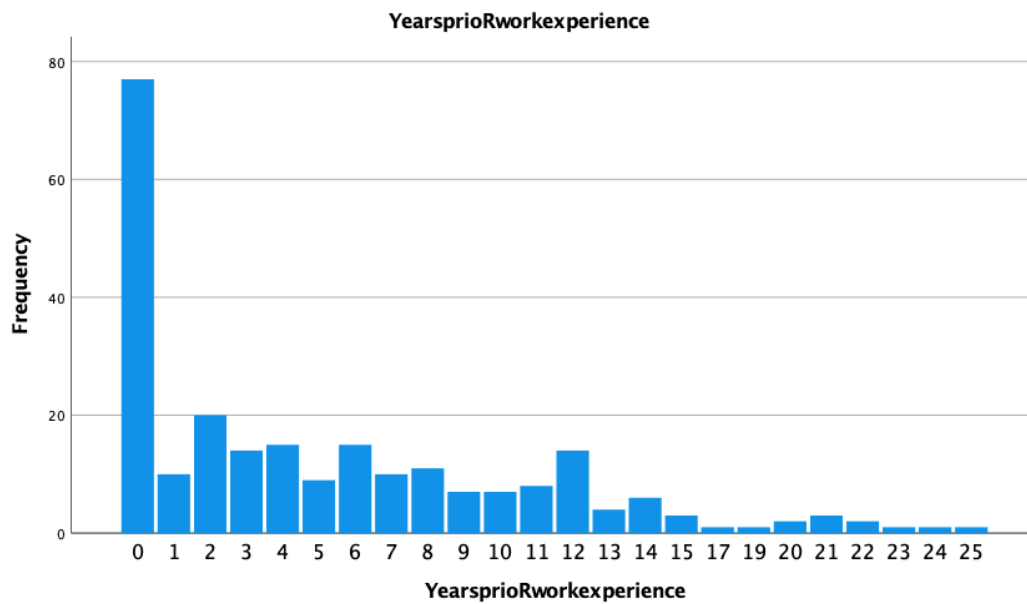


Figure 6: Overview of the samples' years of prior work experience (own illustration)

## Project had Co-Founder

Co Founder	Frequency	Percent
0 (=no)	<b>188</b>	<b>76.4%</b>
1 (=yes)	<b>58</b>	<b>23.6%</b>
Total	<b>246</b>	<b>100%</b>

Table 12: Presence of Co-Founder in the project (own illustration)

## Linked-In Connections

Linked-In Conections	Frequency	Percent
0 (< 500)	<b>150</b>	<b>61.0%</b>
1 (> 500)	<b>96</b>	<b>39%</b>
Total	<b>246</b>	<b>100%</b>

Table 13: Overview of the samples' Linked-In connections (own illustration)

## Project Outcome

Project Outcome	Frequency	Percent
0 (=failed)	<b>24</b>	<b>9.8%</b>
1 (=successfull)	<b>222</b>	<b>90.2%</b>
Total	<b>246</b>	<b>100%</b>

Table 14: Overview of the project outcomes (own illustration)

## Appendix 6: Correlation Matrix

### Correlations Coefficients

#	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Pledge/Goal (%)	1													
2	Gender	<b>-0,147*</b>	1												
3	Age	0,096	-0,061	1											
4	Number of languages spoken	0,079	0,051	0,013	1										
5	English there	0,108	0,014	-0,021	0,426**	1									
6	Education in Years	<b>0,233**</b>	-0,066	0,158*	0,267**	.172 <sup>+</sup>	1								
7	Degree	<b>0,175*</b>	-0,112	-0,030	0,300**	.165 <sup>+</sup>	0,686**	1							
8	School	-0,154*	0,028	0,073	-.215**	-0,072	-.575**	-.621**	1						
9	Founding Experience	-0,047	0,059	0,010	0,128*	0,078	0,007	-0,100	0,015	1					
10	Industry Experience	0,017	0,049	0,102	0,115	-.162 <sup>+</sup>	0,077	-0,081	-0,129	.221**	1				
11	Management Experience	0,026	-0,043	0,200**	0,195**	0,118	0,121	-0,066	-0,030	.631**	.151 <sup>+</sup>	1			
12	Years prior work experience	0,056	-0,084	0,497**	0,139*	0,121	0,068	-0,019	-0,095	.294**	.377**	.475**	1		
13	Project has Co-Founder	<b>0,218**</b>	-0,093	-0,153*	0,076	.126 <sup>+</sup>	0,142*	0,147*	-.174**	-0,005	-0,046	-0,007	-0,114	1	
14	Connections LinkedIn	0,003	-0,105	0,178*	0,229**	.143 <sup>+</sup>	0,109	0,100	-0,102	.131 <sup>+</sup>	0,109	.176**	0,318**	0,123	1

\*\*0, Correlation is significant at the 0,01 level (2-tailed)

\*0, Correlation is significant at the 0,05 level (2-tailed)

Blue = Spearman Analysis conducted

Black = Pearson Analyss conducted

Figure 7: Pearson and Spearman correlation coefficient matrix (own illustration)

### Appendix 9: Regression Coefficients

Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
1	Years of prior work experience	0.176	-0.174	0.128	0.023	0.11	242
2	Prior founding experience	0.510	1.575	2.385	0.016	0.004	245
3	Prior industry experience	0.923	0.150	1.547	0.14	0.002	244
4	Prior management experience	0.541	1.090	1.782	0.016	0.004	245
5	Bachelor	0.561	1.331	2.375	0.036	0.013	222
	Master	0.624	1.210	2.467	0.036	0.013	
	PhD	<b>0.066*</b>	<b>7.385*</b>	3.990	0.036	0.013	
5	Business, Law & Politics	0.941	0.159	2.136	0.062	0.025	211
	Design & Architecture	0.334	-2.245	2.318	0.062	0.025	
	Engineering & Computer Science	0.988	0.049	3.303	0.062	0.025	
	Medicine, Physio & Psychology	<b>0.009**</b>	<b>12.585**</b>	4.770	0.062	0.025	
	History, Tourism & Language	0.820	-1.638	7.195	0.062	0.025	
	Only High School	0.874	-0.428	2.695	0.062	0.025	
6	Connections on LinkedIn	0.680	-0.616	1.492	0.015	0.003	245
7	Project has Co-Founder	<b>0.001**</b>	<b>7.015**</b>	1.647	0.084	0.072	245
8	Gender	<b>0.072*</b>	<b>-4.311*</b>	2.385	0.028	0.016	245
9	Languages spoken	0.209	-1.005	0.797	0.026	0.005	244
	English spoken	0.187	4.758	0.09	0.026	0.005	
	German spoken	0.764	1.235	0.301	0.026	0.005	

**\*\* significant at the 0.05 level, \* significant at the 0.1 level**

Note: For each of the 9 Hypotheses a seperate regression was run. Two regressions were run for Hypotheses 5. The table above summarizes the results of all regressions. See below for seperate reported regression results including controls.

*Figure 8: Results from the 9 Regressions*

Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
1	Years of prior work experience	0.176	-0.174	0.128	0.023	0.11	242
	Control Year Effect	0.066	2.788	1.512	0.023	0.11	242
	Control Project Size	0.681	-6.76 E-6	0.000	0.023	0.11	242
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
2	Prior founding experience	0.510	1.575	2.385	0.016	0.004	245
	Control Year Effect	0.076	2.685	1.507	0.016	0.004	245
	Control Project Size	0.537	-1.006 E-5	0.000	0.016	0.004	245
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
3	Prior industry experience	0.923	0.150	1.547	0.14	0.002	244
	Control Year Effect	0.093	2.527	1.499	0.14	0.002	244
	Control Project Size	0.575	-9.170E-6	0.000	0.14	0.002	244
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
4	Prior management experience	0.541	1.090	1.782	0.016	0.004	245
	Control Year Effect	0.086	2.573	1.493	0.016	0.004	245
	Control Project Size	0.531	-1.024 E-5	0.000	0.016	0.004	245
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
5	Bachelor	0.576	1.331	2.375	0.036	0.013	222
	Master	0.624	1.210	2.467	0.036	0.013	222
	PhD	<b>0.066*</b>	<b>7.385*</b>	3.990	0.036	0.013	222
	Control Year Effect	0.059	2.527	1.640	0.036	0.013	222
	Control Project Size	0.399	-9.170E-6	0.000	0.036	0.013	222
<b>** significant at the 0.05 level, * significant at the 0.1 level</b>							
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
5	Business, Law & Politics Degree	0.941	0.159	2.136	0.062	0.025	211
	Design & Architecture Degree	0.334	-2.245	2.318	0.062	0.025	211
	Engineering & Computer Science	0.988	0.049	3.303	0.062	0.025	211
	Medicine, Physio & Psychology Degri	<b>0.009**</b>	<b>12.585**</b>	4.770	0.062	0.025	211
	History, Tourism & Language Degreæ	0.820	-1.638	7.195	0.062	0.025	211
	Only High School Degree	0.874	-0.428	2.695	0.062	0.025	211
	Control Year Effect	0.135	2.259	1.506	0.062	0.025	211
	Control Project Size	0.671	-7.880E-6	0.000	0.062	0.025	211
<b>** significant at the 0.05 level, * significant at the 0.1 level</b>							
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
6	Connections on LinkedIn	0.680	-0.616	1.492	0.015	0.003	245
	Control Year Effect	0.088	2.558	1.493	0.015	0.003	245
	Control Project Size	0.592	-8.765 E-6	0.000	0.015	0.003	245
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
7	Project has Co-Founder	<b>0.001**</b>	<b>7.015**</b>	1.647	0.084	0.072	245
	Control Year Effect	0.105	2.343	1.441	0.084	0.072	245
	Control Project Size	0.493	-1.076 E-5	0.000	0.084	0.072	245
<b>** significant at the 0.05 level, * significant at the 0.1 level</b>							
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
8	Gender	<b>0.072*</b>	<b>-4.311*</b>	2.385	0.028	0.016	245
	Control Year Effect	0.73	2.678	1.486	0.028	0.016	245
	Control Project Size	0.539	-9.935 E-6	0.000	0.028	0.016	245
<b>** significant at the 0.05 level, * significant at the 0.1 level</b>							
<hr/>							
Hypothesis	Independent Variable	Significance	Unstandardized Beta	Standart Error	R-Squared	Adj. R-Squared	N
9	Languages spoken	0.209	-1.005	0.797	0.026	0.005	244
	English spoken	0.187	4.758	0.09	0.026	0.005	244
	German spoken	0.764	1.235	0.301	0.026	0.005	244
	Control Year Effect	0.102	2.486	1.514	0.026	0.005	244
	Control Project Size	0.512	-1.072 E-5	0.000	0.026	0.005	244

Figure 9: Overview of the 9 separate regression models

### Appendix 10: Hypotheses results

<i>Hypotheses</i>	<i>Regression Weights</i>	<i>B</i>	<i>p-value</i>	<i>Results</i>
H <sub>1</sub>	PWo → P/G	-0,174	0,176	Rejected
H <sub>2</sub>	PFo → P/G	1.575	0,510	Rejected
H <sub>3</sub>	PIIn → P/G	0.150	0.923	Rejected
H <sub>4</sub>	PMa → P/G	1.090	0.541	Rejected
H <sub>5</sub>	UniD → P/G	-	-	<b>Supported</b>
	PhD → P/G	7.385*	0.066*	-
	Med → P/G	12.585**	0.009**	-
H <sub>6</sub>	Conn → P/G	-0.616	0.680	Rejected
H <sub>7</sub>	CoF → P/G	7.015**	0.001**	<b>Supported</b>
H <sub>8</sub>	Gen → P/G	-4.311*	0.072*	<b>Supported</b>
H <sub>9</sub>	Lan → P/G	-1.005	0.209	Rejected

*Figure 10: Hypotheses Results*

**Note.** \*\* $p < 0.05$  \* $p < 0.10$ . **Variables:** Years of prior work experience, Prior founding experience, Prior industry experience, Prior management experience, University Degree, PhD, Medicine, Connections on LinkedIn, Project has Co-Founder, Gender, languages spoken.