



## **Precursors of entrepreneurial engagement**

*A survey of the underlying factors that affect the workplace decision and attractiveness of startups among students in Norway*

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This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.


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## Preface

This master thesis is written as part of our Master of Science (MSc) degrees in Finance and Strategic Management at The Norwegian School of Economics.

Given the circumstances this year writing under the pandemic, we would like to send our highest appreciation and thankfulness to our thesis supervisor Kyeong Hun Lee for estimable perspicacity and exceptional guidance throughout the writing process. Furthermore, we would like to thank Bram Timmermanns for sharing knowledge and helping us with his debt expertise in entrepreneurship's theoretical aspect.

Bergen, December 2020

  
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## Abstract

Norway struggles with a low degree of innovative activity, even though it is ranked as one of the world's best countries to establish new businesses. It is well established that startups have scarce resources in their first years and naturally have challenges in competing with established companies when recruiting skilled employees. This study aims to determine how startups can become more attractive when recruiting or retaining employees, given capital restrictions. This is done by examining how personal characteristics, background and financial compensation affect entrepreneurial intention. In this context, the entrepreneurial intention is defined as "creating a business as a founder and working as an employee at a startup company", contributing to a better understanding of Norway's lack of innovative activity.

An online survey was distributed to master's students enrolled in Engineering and Economics degrees in Norway. The participants were asked to answer questions that were both in line with earlier proven frameworks and others based on earlier scientific literature. The results were further analysed using descriptive statistics, t-tests, multivariate analysis of variance, and probit regression models. The results showed a significant difference between respondents who were planning to work within startups and others. Individuals with startup intentions have significantly lower risk aversion. Among the personal characteristics, we found significant differences in five traits and four skills. Workplace environment factors, like flexibility and autonomy, were more important for participants with entrepreneurial intention. The location of the company was negatively correlated with respondents who planned to participate in startups. Males and students with families whose income is below average were more likely to participate in startups. Moreover, financial compensation can make startups more attractive, whereby option agreements make it possible for startups to recruit or retain students in Norway, even when not offering competitive salaries. Furthermore, we recommend that startups increase their exposure to students, as both earlier experience and affiliation are positively correlated with startup intention.

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# 1 Introduction

Entrepreneurship plays an important role in the economy. It contributes to stimulating growth, changing the way we communicate, use services, and being a driving force for new innovative technologies and products in the market (Carree & Thurik, 2003; Audretsch, 2008; Bygrave & Zacharakis, 2010). As entrepreneurship has played a significant role in the development of society for thousands of years, multiple papers have examined the relationship between personal characteristics and entrepreneurial activity to find similarities and attributes that are more likely to lead to participation (Palich & Bagby, 1995; Davis et al., 2015; Gartner, 1988). Palich and Bagby (1995) suggested that individuals with entrepreneurial participation tended to have high scores on opportunity recognition. Furthermore, openness to experience has been found as a common personal characteristic among the group (Davis et al. 2015).

In 2015, Norway's government reported struggles with innovation activity, which was caused by factors such as high innovation costs, lack of finance, and problems with retaining or recruiting qualified employees as the most common causes (Finansdepartementet, 2015). Recently, Global Entrepreneurial Monitor (2020) reported similar findings, where only 8.4% of Norwegian adults have been involved in early-stage entrepreneurial activity, placing Norway in the bottom quartile of the rated countries. The ability to hire qualified employees is essential to success as a startup (Unger et al., 2011). Due to startups' tendency to have limited financial resources to offer competitive wages, and a high risk of failure, startups will have to provide other types of compensation valued by employees (Booth, 2006). By writing this thesis, we want to supplement the literature of entrepreneurship with new insights that could help understand entrepreneurial activity and how startup companies in Norway can become more attractive for qualified employees. As we find the literature shortcoming regarding students participating in startups, we will investigate characteristics for this group.

Based on the reasons mentioned, we have formed the following research question:

*Which individual characteristics and preferences contribute to entrepreneurial participation, and how can startups in Norway become more attractive for students?*

To answer the research question, an online survey was conducted. The sample consists of answers from engineering and economics students at a master's degree level from multiple universities in Norway. The sample is interesting for several reasons. Firstly, the master's students are more likely to have an opinion on workplace choice since they are close to finishing their degree and starting their working life or have already chosen which career they will pursue after graduation. Secondly, research has suggested that business and natural science students are more likely to find entrepreneurship attractive compared to those from other fields of study (Venesaar et al., 2014).

### 1.1 Purpose

The purpose of the thesis is to map personal characteristics and other relevant factors that could lead to a broader knowledge of the individuals who choose to work within startups after graduation. We want to bring valuable insights to startups that could be valuable when recruiting employees. Furthermore, we seek to find possible answers to why Norway, which in theory has all the prerequisites for bringing innovation and new business development into the market, struggles with a low degree of entrepreneurial business intention (Global Entrepreneurship Monitor, 2020).

### 1.2 Delimitations

To answer the research question in the best possible manner, we have outlined certain limits in the thesis to avoid biases and other potential threats to validity. We have consciously chosen not to focus on either founders or employees individually but will regard the group as a whole. The reasoning behind this decision is that we want to study all individuals engaging in entrepreneurial activities. Notably, significant similarities have also been found between the groups (Roach & Sauermann, 2015). Another natural limitation is our focus on master's students, which do not represent all potential participants in startups.

### 1.3 Outline

This thesis is organised in the following manner. In the literature review (chapter 2), we first present characteristics for entrepreneurship and startup companies' status in Norway. Thereafter, we describe attributes of individuals working in startups, both as founders and workers. Here, we will also include research on successful entrepreneurs. As the participants' requirements in startups are naturally related to the descriptions of the characteristics of people

who succeed with startups, this design will be our basis for formulating the hypotheses (chapter 3) of the paper. Furthermore, this theoretical foundation will be used as a starting point for designing the survey. Chapter 4 describes the methodology used to answer our research question, analysed with the results presented in chapter 5. Afterwards, we discuss the findings in chapter 6, before bringing our conclusion and final remarks, respectively, in chapters 7 and 8.

## 2 Entrepreneurship - Literature Review

From a historical view of modern society, entrepreneurship has played an essential role over thousands of years to transform the market to the products we use, the services we benefit from, and the way we live our lives today. The term “Entrepreneurship” was first defined by the French-Irish economist Richard Cantillon, where the word appeared in the French dictionary compiled by Jacques des Bruslons in 1723 (Landström & Benner, 2010). Cantillon emphasised entrepreneurship as a matter of foresight and willingness to assume uncertainty. The entrepreneurs played an arbitrage role in the market, bringing a balance between supply and demand (Landström & Benner, 2010). Almost three hundred years later, researchers are still bringing new definitions to the term, still not finding consensus for a clear definition (Gartner, 1988). The definition of entrepreneurship adopted in the thesis is “an activity that involves the discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organising, markets, process, and raw materials through organising efforts that previously had not existed” (Venkataraman, 1997; Shane & Venkataraman, 2000). The choice of definition is based on various reasons. Firstly, it is not limited to just one specific type of characteristic that applies to individuals in every situation, but it is contextual, describing the tendency of people who take advantage of opportunities. Secondly, it is not only limited to but includes individuals who start a business. Lastly, it combines sociological and economic conditions (Shane & Venkataraman, 2000), which makes it suitable for our analysis. Furthermore, in context with the theoretical aspect of entrepreneurship, “startup” has emerged as an additional source of new words within entrepreneurial businesses. Ries (2011) describes a startup as “a human institution designed to create a new product or service under conditions of extreme uncertainty”.

The founding of new enterprises plays an essential role in the economy. It brings new technology and solutions to the markets worldwide, contributing a large proportion of the

innovative products and services that change the way we work and live our lives (Bygrave & Zacharakis, 2010). Entrepreneurial activity has also been found to make positive contributions to economic growth and is essential for businesses to grow, introducing innovations to established companies (Audretsch, 2007; Mueller, 2006; Acs et al., 2011). Since the 1970s, the number of newly established companies in the west has exploded (Clow, 1997). Various causes such as more women participating in business, the influence of new technology, and lower barrier cost of market entry due to globalisation have been suggested as possible explanations (Bygrave & Zacharakis, 2010).

Even though Norway is a small economy, it is one of the world's wealthiest countries according to GDP per capita ratings (International Monetary Fund, 2020). Besides its rich source of resources and an overall high score on wealth, it has also been ranked as one of the happiest and most developed countries globally for many years according to the Human Development Index (HDI). Taking a glance at these statistics makes it rational to believe that the country scores high in innovation and entrepreneurship, as research suggests a positive correlation between wealthiness and entrepreneurial activity (Davidsson, 1995; Davidsson & Wiklund, 1997; Shane, 1992, 1993). However, according to the Global Entrepreneurial Monitor (2020), this is not the case. Only 8.4% of Norwegian adults have been involved in early-stage entrepreneurial activity. This is less than half compared to the USA (17.4%), approximately a third compared to Brazil (23.3%) and less than a fourth compared to Chile (36.7%).

The establishment of the business ownership rate is 5.6%, whereas entrepreneurial employee activity scores 2.6% of the population (Global Entrepreneurship Monitor, 2020). The findings suggest that this is partly caused by its population's perceived skills to start a business, its low degree of entrepreneurial intentions, and lack of opportunity-seeking behaviour. The country's scores are high on entrepreneurial education, physical infrastructure, and commercial and legal structure. For a long time, Norway has scored high on gender egalitarianism, where on average, women have higher education and participation in employment compared to other OECD countries (OECD, 2018). Surprisingly, Norway scores low, and has an uneven gender balance, in its rate of Total early-stage Entrepreneurial Activity (TEA), according to the Global Entrepreneurship Monitor (2020).

To increase Norway's degree of innovation and entrepreneurship, the government has set a goal of maintaining strong innovation ability by increasing its investments in innovation,

research, entrepreneurial education, and development (Finandsdepartementet, 2015). Among the most reported reasons for struggling with innovation activity, the government reports economic factors such as high innovation costs, lack of finance, and problems in retaining or recruiting qualified employees as the most common. In the following chapters, the thesis will focus on factors that influence workplace choice, financial compensation structures, and the recruitment of employees in startups.

## 2.1 Financial compensation

Acquisition of employees is a considerable concern for startups as most nascent ventures struggle with limited capital (Bygrave & Zacharakis, 2010). Keeping a low turnover is essential for companies to maximise the utilisation of scarce resources. Both hiring and training new employees increases direct costs. High turnover leads to organisational forgetting, thus increasing indirect costs (Aldatmaz et al., 2018). This section contains literature explaining different types of financial compensation and research regarding how the different types can be used to acquire and incentivise employee retention.

### *Salaries*

Salaries are the most common form of financial compensation that companies offer employees. Burton et al. (2017) examine how salaries are influenced by age and size for Danish organisations. According to the research, young companies paid more than older firms did. When considering the size of the firms, the larger companies tended to pay more than smaller firms. Startups usually launch as small companies, making it more likely that a startup will pay lower salaries than established and older companies. The salaries and earnings growth for founders of newly established companies also tend to be smaller than paid employment (Hamilton, 2000). Since new companies regularly struggle to compete and pay market rates for salaries, other ways to compensate employees can potentially be used to make startups stay attractive.

### *Equity*

Organisations need dedicated employees to solve their work tasks to survive. Thus, compensation decisions for individuals have important consequences (Gerhart & Milkovich, 1990). Financial assets are means by which individuals can hold claims to the income generated by a firm's real assets (Bodie et al., 2011). Equity represents ownership in the firm and does

not promise a scheme of payments. Since the value of equity will increase with the company's performance, this compensation induces employees' contribution to the success of the business (Booth, 2006). Thus, it can incentivise skilled employees, common for tech startups (Bao & Wu, 2017). In addition to aligning the company's interests and the employees', equity also gives the owner shareholder rights.

### *Stock options and vesting agreements*

Derivatives are financial instruments where the underlying value depends on the value of another asset, such as options, futures, and forwards (Brealey et al., 2011). Stock options and vesting agreements are common ways to offer equity for employees. An option is a contract that gives the right, but not the obligation, to buy a stock at a prespecified "exercise" price at a prespecified term (Hall & Murphy, 2003). There are endless possibilities to form derivatives in order to create desired payoffs. Compared to shares, the stock options have a tax advantage for employees as they can avoid paying taxes until exercised (Oyer & Schaefer, 2005). As stock options depend on the value of the company, it will be riskier than salaries.

Three potential economic justifications for a firm to issue stock options are: to incentivise the employees, to induce them to sort, and to facilitate retention (Oyer & Schaefer, 2005).

Firstly, given the assumption that everybody holds the same information regarding the firm's prospects, stock options will have a sorting mechanism to attract the most optimistic employees. This will be advantageous as optimistic employees are harder working, more productive, and more willing to invest in firm-specific human capital (Oyer & Schaefer, 2005). Secondly, compared to equity, the options are usually structured, so only employees who remain in the firm can benefit from them (Hall & Murphy, 2003). Thus, they provide an incentive to remain at least until the options vest, and by structuring vesting agreements ideally, employees will remain in the companies for the desired length (Aldatmaz et al., 2018). Hence, it will incentivise to maximise the firm value and retain employees who believe in the company, as the option will only have a value when the firm value increases (Booth, 2006). Thus, will the outcome of issuing options differ from fixed salaries and incentivise differently for the employees.

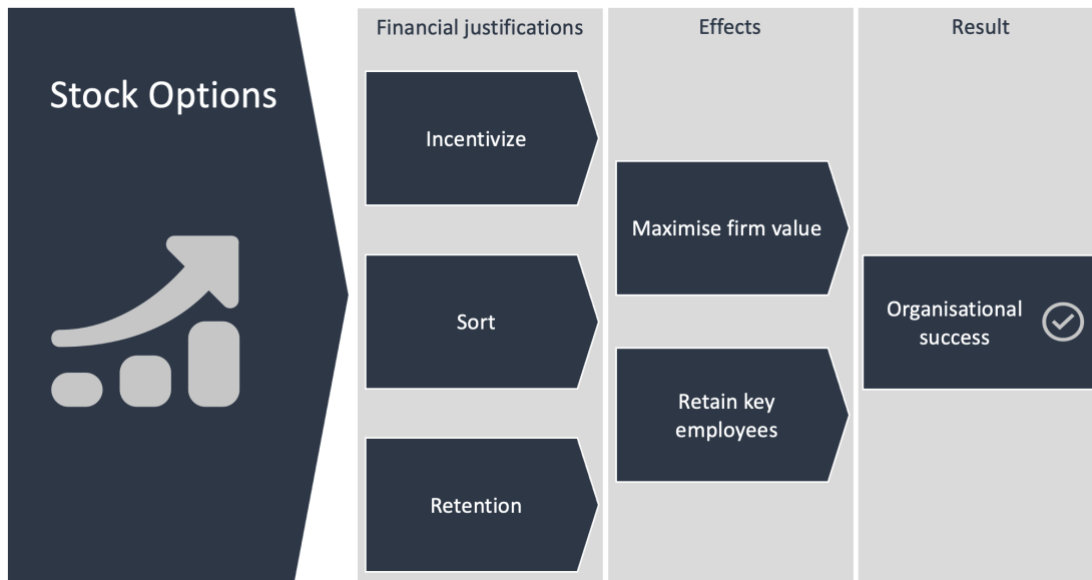


Figure 1: Visual presentation of potential effects of stock options.

## 2.2 Human capital

Human capital reflects the capabilities, knowledge, skills, and experience of a firm's employees and managers (Ireland et al., 2003). One of the earliest contributors to the theory of human capital, Becker (1964), suggested that human capital provides an increase in workers' productivity. Similar findings have been supplementing this theory, where a broad amount of research literature has publicised that the human capital is an essential driver of economic growth (Lucas, 1988; de la Fuente & Doménech, 2006). The common findings throughout the research are that human capital is contributing to competitive advantage by technology and innovation (Pistorius, 2004; Ballot et al., 2001; Horwitz, 2005) and that it has a positive effect on labour productivity in production (Romer, 1990; Blechinger & Pfeiffer, 1998; Mankiw et al., 1992).

As a result, human capital may be the most critical factor for firms seeking to act entrepreneurially (Ireland et al., 2003). It is found to be even more critical in locating the best people and holding on to them in startups as the company's human capital is the most significant driver for business growth (Longenecker et al., 2020). Literature has also weighed the importance of human capital in entrepreneurship, where evidence shows that the human capital outcomes are essential in the stages of discovery and the creation of entrepreneurial opportunity, assisting in the accumulation of new knowledge and creation of advantages for new firms (Marvel et al., 2014). One of the contributors to human capital is regarded as high education. Here, researchers have argued that higher education levels may affect individuals

seeking higher-paid jobs, which contain less risk (Van der Sluis et al., 2008; Cassar, 2006; Evans & Leighton, 1989).

According to research, human capital contributes to entrepreneurial success in multiple ways: 1) Human capital increases owners' capability to discover and exploit new business ideas (Ireland et al., 2003). 2) Human capital has been positively correlated with business strategy and planning (Smith et al., 2001; Frese et al., 2007). 3) Education and individual knowledge contribute to acquiring financial resources and physical capital (Brush et al., 2001). 4) Human capital is a leading step for knowledge implementation and further learning, driving the ability to acquire knowledge and skills (Ackerman & Humphrey, 1990). Thus, the necessity of recruiting skilled employees for startups is found to be important. Research also points to new companies' challenge in attracting skilled labour, mostly because of their financial constraints (Baron et al. 2001; Hsu 2007; Chandler & Hanks, 1998).

## 2.3 Involvement in entrepreneurial activity

This section presents the literature describing the characteristics of participants involved with startups. Most of the theory about entrepreneurial intentions and entrepreneurship focuses on the founders themselves, without much literature supporting the people who join entrepreneurial firms as employees. As both workers and founders tend to share the same characteristics (Roach & Sauermann, 2015), participants in startups will be considered collectively for the thesis as a group of individuals with an entrepreneurial intention.

### 2.3.1 Personal characteristics

#### *Entrepreneurs*

The main distinction between what defines entrepreneurs has been whether behavior and skillsets or physical outcomes should determine them (Gartner, 2001). Schumpeter's (1942) interception was that entrepreneurs were the economic system's driving force and played the role of leader and agent of innovation. Schumpeter's findings suggest that new ventures' potential depends on the number of persons who possess the individual characteristics combined with the personal relationships that will lead them to the chance of starting a new business.

Research has later been trying to find out more about these individuals who become entrepreneurs and their characteristics. Gartner (1988) linked the idea that entrepreneurship involves individuals with unique personality characteristics and abilities. Thomas and Mueller (2000) found the same idea that the term entrepreneur implies a configuration of psychological traits, attributes, attitudes, and values of an individual motivated to initiate a business venture. To describe the underlying thought-processes for individuals who tend to participate in entrepreneurial activity, Entrepreneurial Mindset (EM) has emerged as a new term within the literature of entrepreneurship. Entrepreneurial Mindset (EM) can be defined as a “constellation of motives, skills, and thought processes that distinguish entrepreneurs from non-entrepreneurs” (Davis et al., 2015). Considerable research has been conducted on the subject with a cognitive-based perspective (Palich & Bagby, 1995; Busenitz & Barney, 1997; Simon et al., 2000; Haynie & Shepherd, 2009). Among the findings, entrepreneurial activity was found to be positively correlated with opportunity recognition (Palich & Bagby, 1995).

Other explanatory studies have focused on traits instead of cognitive-based EM (McClelland, 1961, 1967; Brockhaus, 1980). The earlier focus solely on personal traits was unclear and was not shown to explain the individuals’ specific characteristics chasing entrepreneurial activity. The research has found connections with risk and the need for achievement, which is also related to entrepreneurial success (McClelland, 1961). In an effort to describe Entrepreneurial Mindset more precisely, researchers have also conducted combined studies of traits and skills (Davis et al., 2015; Neneh, 2012). As a result, Davis et al. (2015) has created a framework for measuring a “Entrepreneurial Mindset Profile (EMP)”. The framework consists of seven skills and seven traits, each measured on a scale from one to five.

Education plays a fundamental role in encouraging the growth of new businesses. Therefore, it is necessary to understand the behaviours and educations of these entrepreneurs who create new businesses (Gartner, 1988). Another factor supporting entrepreneurial activity is prior knowledge, which is an essential contribution to individuals’ ability to recognise opportunities, apply them, and create solutions (Shane, 2000).

Interest and participation in entrepreneurship vary among individual attributes as startups’ business environment contains elements of risk, and the attitudes towards, and perception of, risk differ between individuals (Shane, 2003). Moreover, positive correlations between attitude and behaviour intentions have been found, which further leads to actual behaviour (Ajzen,

1991). Building on McClelland's (1961) work with the connection between personality traits and entrepreneurs, it is found that entrepreneurs tend to possess a higher tolerance for risk than managers and small business owners (Carland et al., 1995). Critics of the work have suggested that risk propensity could not directly correlate to entrepreneurial activity (Brockhaus, 1980). According to Powell and Ansic (1997), gender affects risk aversion when it comes to financial decisions. The experiment gave indications that females are less risk-seeking than males. Other experimental studies have found similar outcomes, where there seems to be a relationship between women tending to be more averse to risk and to shy away from competitive settings (Croson & Gneezy, 2009; Eckel & Grossman, 2008). One underlying reason for the differences in risk aversion between genders have found to be caused by testosterone (Sapienza et al., 2009).

Individuals' risk aversion has also been connected with other factors, such as age and socioeconomic background (Riley & Chow, 1992). The research found that risk aversion rises over the poverty level and decreases significantly for very wealthy individuals. Several empirical studies have also contributed to the research on wealth and entrepreneurship, where findings suggest that wealthy individuals have more entrepreneurial activity (Evans & Jovanovic, 1989; Fairlie, 1999). The theme has been criticised by Hurst and Lursardi (2004), where they suggested that this only applies to extremely wealthy individuals.

### *Employees*

The employees in startups have been recognised as one of the most important factors to survive and are an important driver of growth for the company (Bygrave & Zacharakis, 2010; Morris & Jones, 1993). Even though becoming an employee in startups can be associated with taking additional risk, working for startups has become more attractive since the nineties (Neff, 2012). Roach and Sauermann (2015) found that employees' intentions in startups are broader, where the joiners share many similarities compared to "non-entrepreneurs". Individuals that were already interested in entrepreneurial activity were more likely to choose startups over established companies. Furthermore, the study showed that individuals with intentions of establishing their own company in the future were more likely to apply for working in startups to learn how to be founders themselves (Roach & Sauermann, 2015).

### 2.3.2 Experiences

Research about individuals has proposed that contextual influences (Kacperczyk, 2012) and sociological factors shape entrepreneurial decision behaviour (Aldrich & Ruef, 2006; Thornton, 1999; Hoang & Antoncic, 2003). Startup experience contributes to more interest in entrepreneurship and positively affects entrepreneurial skills (Clarysse et al., 2011). Regardless of earlier success or outcome for individuals with experience in entrepreneurship, researchers have found a higher probability that they will choose a career within the field again (Shepherd, 2003; Sitkin, 1992). This can be tracked down to the ability to learn from experiences – both positive and negative – which could lead to insight and knowledge regarding what to do the next time. Consequently, they are searching for and exploiting new opportunities (Clarysse et al., 2011).

If the sociological factor affects the individual behavior, it should be a reason to believe that this could also impact the choice of working for or establishing startups as founders (Dobrev & Barnett, 2005; Stuart & Ding, 2006; Nanda & Sørensen, 2010). Moreover, one study examined the relationship between preference for self-employment versus working for a large business. The findings suggested that the students who had parents who own a small business were more likely to prefer self-employment (Scott & Twomey, 1988). The researchers suggest that earlier experiences and affiliation with startups could lead to a higher chance of working in entrepreneurial organisations. Arenius and Minniti (2005) proposed that the local and social environments do bring competencies to entrepreneurial activity and reduce the uncertainty around entrepreneurship. The experiences were based on correlation with social contexts as family and universities (Arenius & Minniti, 2005). Research into the importance of role models has been conducted, which gives indications to connect the importance of guidance, support, and information as providers of influence when individuals are facing decisions regarding future workplace (Buunk et al., 2007; Lent et al., 1994).

### 2.3.3 Organisational differences

Schumpeter (1942) observed that an appropriate social climate is needed for the emergence of entrepreneurship. Several studies have been conducted on entrepreneurship, where organisational settings also affect the choice of the workplace (Autio et al., 2014; Welter, 2011). There are significant differences between working at an entrepreneurial firm and more established companies (Bygrave & Zacharakis, 2010). These differences that are distinctive

between the companies' size and structure might affect the choice of workplace, as the decision-making of individuals, especially that of younger people, tends to be affected by their perception of what they want to do in the future (Porfeli & Lee, 2012).

A company with a better reputation is more likely to attract more applicants (Cable & Turban, 2003). Research suggests that corporate reputation and familiarity with a company will influence potential applicants' job consideration (Cable & Turban, 2003). The research suggestions are explained as that the effect of company reputation is connected with the job's attributes and pride regarding potentially being an employee at the firm. Another effect of reputation is connected to quality associations (Shapiro, 1982). As a consequence of a good reputation, people tend to associate the products with high quality. This leads to the ability to sell at a premium above cost, thus reducing organisational failure (Shapiro, 1983).

Research has also found that the company's location is important when choosing a career (Turban & Keon, 1993; Uggerslev et al., 2012). On the other side, location has also been identified as an important factor for business performance (Sridhar & Wan, 2010). These locations are often strategically placed in line with the company's type of product or service (Lafuente et al., 2010). Studies have shown that startups tend to strategically place their location, as a rural location would not benefit organisations (Chapman et al., 2005).

Entrepreneurial activity has been found more attractive among individuals who prefer autonomy (Shane et al., 2003). One of the main tasks of a leader in startups has been to provide the workers with enough freedom (Bygrave & Zacharakis, 2010), where findings suggest that entrepreneurial businesses tend to give workers the ability to control their own activities and decisions in the organisations.

Another distinction between companies is the degree of flexibility, which can be regarded as a multidimensional concept covering the number of working hours and the particular hours to be worked (Mas & Pallais, 2017). A study on employees working at IBM showed that perceived flexibility opens up a balanced family life, which benefits both the employer and the organisation (Hill et al., 2001). Research on workers with the same wage level has found positive impacts on flexible workdays in terms of the job they do, like perceived control on tasks, ability to use creativity, and involvement in decisions (Origo & Pagani, 2008). The positive effects of flexibility were more significant for younger workers and decreased with

workers' age. Other outcomes of flexible workdays like reducing conflict and workload stress indicate that they promote individual well-being, family solidarity, and organisational success (Hill et al., 2010).

## 3 Hypothesis

In the following chapter, we will present four hypotheses that will be used to answer the research question in this thesis. As previously mentioned in chapter 2, multiple studies are conducted, contributing to entrepreneurship's theoretical aspect. We do, however, find shortcomings in the literature in various facets. This study will mainly supplement the literature regarding factors that affect students' choice of workplace. Furthermore, it seeks to bring new insights regarding factors that contribute to entrepreneurial activity and how startup companies in Norway can become more attractive for students.

### 3.1 Financial compensation

New ventures are resource constrained, but they still have to provide competitive compensation for the team (Bygrave & Zacharakis, 2010). For early-stage companies with limited financial resources, there are different ways to compensate employees. The choice between wages, salaries, bonuses, equity, or customised combinations depends on the company's nature (Bygrave & Zacharakis, 2010). Furthermore, the compensation structure will impact the employees, as the payment will vary based on the company's performance and the incentives for different work behaviour. Thus, a successful compensation structure gives financial incentives to increase productivity and motivate employees (Longenecker et al., 2020). Higher income, usually represented in salaries, allows higher purchase power and consumption, which can be seen as a critical indicator of social standing and success (Gerhart & Milkovich, 1990). According to a study conducted by Wiley (1997), wages are the factor that motivates most, examining over 40 years of motivation data in the US. Similar findings are presented in a study of engineers in Malaysia, where high wages were also the most motivating factor for employees (Islam & Ismail, 2008).

The salaries offered at a company are not the only way to pay the employees. Equity can work as compensation for employees (Bygrave & Zacharakis, 2010). Frye (2004) emphasises that equity-based compensation helps attract, retain, and motivate key employees. Findings from

Bao and Wu (2017) argue that inequality of equity between employees has a negative effect, while inequality of salaries can be positive, supporting more extensive use of equity. Since an entrepreneur might not want to give away equity to all employees, derivatives can create the desired features or payoffs.

As described in section 2.1, there are several opportunities for startups to offer financial compensation to attract employees in addition to salaries. Compared to salaries, a stock options' value will not be specified in advance but vary with the underlying value (Brealey et al., 2011). As a result, an increase in company value increases the value of the options. Consequently, stock options appear valuable for people or groups that believe the company is undervalued and they make a job offer more attractive. As options also affect retaining and acquiring optimistic and motivated employees, stock options as compensation are considered an attractive alternative for a startup's employees with a firm belief in the product or services the company delivers (Oyer & Schaefer, 2005).

One of the main problems for startups is scarce resources, making it harder to offer competitive salaries. Moreover, startups may struggle to attract highly skilled employees. Vesting agreements, including stock options, can reduce the required salary for an employee as it gives a potential payout at a later point in time.

Given these assumptions, also linking the positive factors of equity, stock options, and vesting agreements, we have formed the first hypothesis as:

***Hypothesis 1:*** *The financial compensation structure allows startups to become more attractive for students, even when lacking capital.*

## 3.2 Personal characteristics

As mentioned in chapter 2, participation in entrepreneurship will contain elements of risk perceived differently by individuals (Shane, 2003). Since human beings are incapable of predicting the future, we have to include the probability of different outcomes in behavioural models. This view will be interpreted differently among individuals based on their degree of sensitivity to risk, also called risk aversion. Risk aversion is a standard element in theories

discussing choices that involve compensation and uncertainty (Holt & Laury, 2002). Furthermore, it can be described as a parameter determining how much satisfaction a person experiences from a good or money (Thomas, 2015). As individual decision-making regarding career paths involves risk elements, the degree of risk aversion will play a fundamental role in considering different outcomes.

From the previous theoretical foundation presented in section 2.3.1, there is substantial research conducted on what characteristics entrepreneurs and employees in startups possess, where entrepreneurial participation can be traced to certain individual behaviours. From the studies conducted by Davis et al. (2015) who tested the EMP framework on managers and entrepreneurs, it was found that traits had more substantial effects on entrepreneurial status. Additionally, gender scored differently, and openness to experience (Big five) received the most prominent effect with the scale of EMP (Davis et al., 2015).

The choice of career path contains countless unforeseen events that involve elements of risk. Therefore, we find it both necessary and practically important to include this dimension to answer our research question. As implicated in 2.3, new businesses are generally more resource constrained and tend to struggle for survival compared to established companies. This is also the case in Norway, where only 28.4% of the newly established companies founded in 2013 are still active in 2018 (Statistics Norway, 2018).

Based on the findings that suggest that entrepreneurs possess a higher tolerance for risk (McClelland, 1961), we want to focus on whether this applies to master's degree students in Norway, and if so, how much it weighs when choosing a workplace. The entrepreneurial mindset measurement based on a trait- and cognitive-based research individually has not explained the EM. Therefore, we have chosen to combine the dimensions by using a framework created by Davis et al. (2015) to see whether risk aversion will be the strongest indication in explaining the choice of the workplace for master's students living in Norway. Hence, our second hypothesis is:

***Hypothesis 2:*** *Risk aversion is the main personal characteristic that affects the choice of working at a startup company.*

### 3.3 Entrepreneurial experiences, involvement and family background

As argued in section 2.3, we saw that contextual influences and sociological factors are driving forces in entrepreneurial behavior (Kacperczyk, 2012; Aldrich & Ruef, 2006; Thornton, 1999; Hoang & Antoncic, 2003). Findings suggest that when an entrepreneur joins their second startup, the likelihood of joining another increases every time (Lafontaine & Shaw, 2016; Wiklund & Shepherd, 2008). Thus, there is a higher probability for people earlier involved with startups to choose a career within the field again. This could further be substantiated with findings implying that serial entrepreneurs usually have an entrepreneurial mindset profile (McGrath & MacMillan, 2000). The experiences of individuals could be influenced in various ways, either directly as founders or workers, or indirectly through close and distant relationships (Kacperczyk, 2013; Aldrich & Zimmer, 1986; Arenius & Minniti, 2005). Different sources of actors could influence the social environment of an individual. Findings have suggested that it could be rooted in simple connections as peers (Qin & Estrin, 2015), mentors (Eesley & Wang, 2017) or relationships more distanced (Arenius & Minniti, 2005). Therefore, the network could be an understated source of influence of individuals when it comes to choosing career directions and preferences (Stuart & Sorenson, 2005). Furthermore, extremely wealthy individuals are positively correlated with establishing startups (Hurst & Lursardi, 2004).

Linking the literature of social influence, experience, and wealth distribution of individuals' family background, we want to supply the literature with new insights. Thus, our third hypothesis is formulated as the following:

***Hypothesis 3:*** *Earlier experiences, socioeconomic background, and affiliation with startups will affect participation in entrepreneurial businesses.*

### 3.4 Organisational differences

According to current studies, making career decisions is a complex task for young adults (Gati et al., 1995; Rounds & Tinsley, 1984). To complement former hypotheses with theoretical aspects focused on the companies themselves, we want to look further into how much the organisational differences matter in this decision and whether particular organisational distinctions can be traced back to entrepreneurial preference. This has been done by dividing

the organisational differences into two categories, shaping the last hypothesis: (1) *Corporate reputation* and (2) *Workplace environment*.

The chosen categories are based on findings from the literature review (section 2.3.3).

The applicants will be affected by the reputation and familiarity of a company when considering different employers (Cable & Turban, 2003). Furthermore, we have chosen the workplace environment to include these specific organisational elements: *Flexibility*, *Autonomy*, and *Location*. The factors tend to differ between established companies and startups, which might give us an indication of the importance of organisational factors in the choice of workplace. Thus, bringing us to our last hypothesis:

**Hypothesis 4:** *The corporate reputation and workplace environment will affect the choice of working at a startup company.*

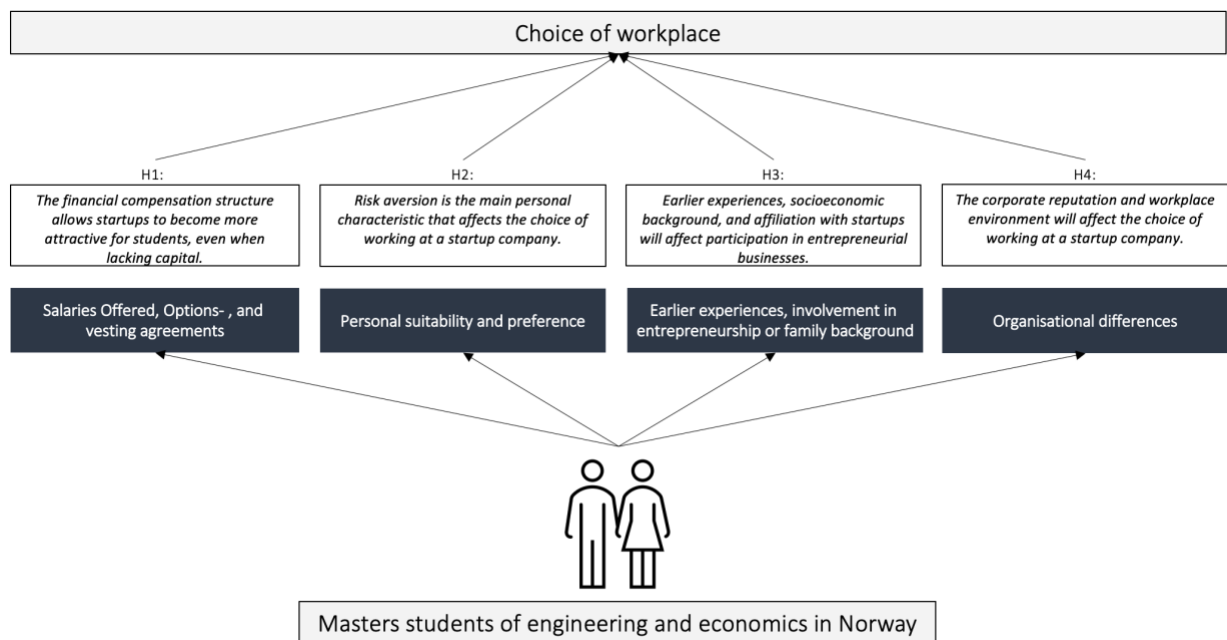


Figure 2: Visual structure of the formulated hypotheses.

## 4 Methodology

### 4.1 Research Design

The research design describes the plan of answering the research questions (Saunders et al., 2016). The data was collected through a quantitative method, and a deductive research approach was used to answer the formed hypotheses. As argued by Saunders et al. (2016), a survey strategy is often associated with a deductive approach, where the method can be used to collect standardised data from a sizable population efficiently. The authors also claim that a survey strategy allows us to find relationships between variables and create models from these correlations based on the collected data (Saunders et al., 2016). Furthermore, the method can be used to find representative statistics for a population. Based on these arguments, a cross-sectional survey was applied in this thesis. An online questionnaire was formed, which according to Saunders et al. (2016), is an effective research strategy when wanting a large sample that could be geographically dispersed. As advised and supported by the Norwegian School of Economics, the survey software Qualtrics was used to collect data.

#### 4.1.1 Population and sample

The chosen target population consists of engineering and economics students currently enrolled on a Master of Science (MSc) degree in Norway. The total population consists of master's students with economics and engineering degrees in Norway. The respondents of the age group 21-25 are the most representative group for Norway's population at the master's level.

The choice of the target population was based on two reasons. Firstly, research shows that economics and natural science students in Europe are more likely to find entrepreneurship attractive (Venesaar et al., 2014). Secondly, the desired choice of using master's students instead of those studying for their MBA or bachelor's degree is based on the premise that, as these students are less likely to have been influenced through earlier full-time work experience and are more likely to currently, or soon going to apply for a workplace after graduation.

The schools that were most represented in the sample were the Norwegian School of Economics (NHH), BI Norwegian Business School (BI), and the Norwegian University of Science and Technology (NTNU). Due to potential privacy conflicts with universities across

Norway, a non-probability self-selection sampling was implemented. The survey was distributed and published in different closed Facebook groups for master's students in the universities mentioned above. By making contact with the universities' administration, we were allowed to get access to the groups and share our survey. Furthermore, the survey was sent out to all NHH students through an email invitation to participate. Here, we followed up by sending out two reminders for maximising participation among the students (Appendix I). We explicitly stated that the participation was optional, that they at any time could withdraw from the anonymous survey, and that it would not be distributed for purposes other than for this specific research. Moreover, no information was asked for that could make it possible to trace the information to the respondents, as IP-data collections were turned off.

#### 4.1.2 Pilot testing

To ensure that our survey was interpreted correctly according to the thesis' intentions, different pilot surveys were conducted between 19 and 26th October. This action was highly prioritised. The target gave us estimations of the time used to complete the survey and whether clarity, confidence, and reassurance could be improved.

As part of face validity, the questionnaire was assessed by sending the survey to a group of professors at the Norwegian School of Economics. By communicating with individuals possessing in-depth knowledge with questionnaire design, we received valuable feedback on the structure. After the feedback, which consisted of small suggestions for corrections, a pilot test was conducted. Saunders et al. (2016) recommended that the minimum demand for small questionnaires was used by asking ten participants to ensure that the questions were interpreted as wanted and understandable. The last test we did before creating the final survey was a "test re-test". According to Saunder et al. (2016), a "test re-test" is obtained by checking differences between data collected from the same individuals participating in a test twice under as identical conditions as possible. Ten respondents were asked to answer the survey with three days' space between the first and second inquiry. After collecting the first results, the questions were untouched and distributed to the same students for a re-test to ensure consistency over time, making the results more reliable.

The results from the period of pilot testing gave indications that some of the questions could be misinterpreted. Some of the respondents, understandably, showed signs of hesitation

regarding some of the personal questions. The testing led to a few corrections of the design and theoretical organisation of the question but provided awareness of small adjustments that could be done to optimise the survey. Among these, modifying or excluding the factors that the respondents answered differently were done to improve the questionnaire. Another improvement was to inform the respondents that the questions could be misinterpreted or feel similar to each other in the instructions of the survey. Statements about the anonymous data collection were highlighted in both the introduction to the survey and the invitations sent out. Here, the storage of information and purpose were clearly stated.

## 4.2 Data collection

The questionnaire was distributed in the period of 30th October to 10th November using Qualtrics as the preferred platform for collecting data. The online survey provided additional services, including anonymous participation, and a scheduled email list. The standard layout from the NHH design was chosen and edited according to our preferences.

Three methods were used to reach out to the master's students, where the primary source of data was collected through mails. The administration at the different universities provided lists of mail addresses to the students. Access was granted to Facebook pages for student classes at NHH, NTNU, and BI, where the survey was published.

The last destination for reaching out to participants was voluntary school organisations, where the contacts sent the survey out internally in their respective groups. A conscious choice of not giving out prizes or some gift for participation was found to be safest and would only be an option if few respondents proved to be a potential problem, which was not found during the collection.

### 4.2.1 Data cleaning

The email distribution proved to be the most attractive contribution to respondents, where 339 people participated from personal mails received from the Qualtrics software. From the study groups on Facebook, 112 answers were collected, and the organisations reached out to 24 voluntary participants. This summarises the total number of participants in the survey, with 475 individual contributions. Among these, 157 were removed as a consequence of cleaning invalid, unfinished, and unreliable data. As mentioned, the biggest contribution was collected

through email, but the number of invalid surveys resulted in 63.1% valid responses. Among the more personal contact through Facebook and study groups, the outcome was higher in validity rate, 76.8%, and 75%.

After information was collected from the conducted tests, every answer which used less than two minutes was removed. Furthermore, repeating answers were subjectively evaluated, where it was found more appropriate to remove the answers from questions deemed unreliable. Another measure included in the survey was control questions like: Are you a master's student? By going through the answers on which school the participants were graduating from and controlling it with the name of the degree also contributed to removing bachelor students or non-representative students. After filtering the data, we were left with 318 respondents.

	Mail	Facebook	Voluntary school organisations
Total responses (475)	339 (71.4%)	112 (23.6%)	24 (5%)
Valid responses (N = 318)	214 (67.3%)	86 (27%)	18 (5.7%)

Table 1: Participation rate from survey. Data received from: Qualtrics

## 4.3 Measures

The survey constructed in Qualtrics consisted of 17 questions in total, estimated to be completed within four minutes. This section will explain the choice of questions from the survey (Appendix I).

### 4.3.1 Validity of sample

Two questions were created to verify the fit of our sample. To ensure that respondents were current master's students, we asked: "*Are you a masters student?*", with yes and no as alternative responses. The second question was made for mapping whether the students had chosen their desired workplace after graduation or not. This was done by asking the question "*What is your status regarding a job after graduation?*" As alternatives, the respondents had four options: 1) Not currently looking for a job, 2) Looking for a job, 3) Have accepted a job offer after graduation and 4) other.

Purpose	Question	Alternative
Confirmation of preferred sample	<i>“Are you a masters student?”</i>	1. Yes 2. No
Occupation after graduation	<i>“What is your status regarding a job after graduation ?”</i>	1. Not currently looking for a job 2. Looking for a job 3. Have accepted a job offer after graduation 4. Other

Table 2: Validity of sample. Data received from own survey.

#### 4.3.2 Dependent variables

Two questions were formed to create the dependent variables in our analysis. Both had binary responses (yes/no). The first variable describes startup intention, which separates the respondents planning to work for a startup from the rest. The question asked was: “Will you or do you plan to work for (or establish) a startup after graduation?”. The second variable described the willingness for alternate financial compensation than salaries. The question was formed as a claim “I am willing to accept a lower salary if I receive shares or stock options as compensation”.

Variable	Question	Alternative
Startup intention	<i>“Will you, or do you plan to work for (or establish) a startup after graduation?”</i>	1. Yes 2. No
Option agreement	<i>“I am willing to accept a lower salary if i receive shares or stock options as compensation ?”</i>	1. Yes 2. No

Table 3: Dependent variables. Data received from own survey.

#### 4.3.3 Independent variables

Table 4 presented below shows how we created the questions to each hypothesis; how different questions are used to collect data used in the analysis to answer the hypotheses. In the text we explain the creation of each independent variable.

H	Category	Measurement	Question	Alternative
H1	<i>Financial compensation</i>	Salaries	<i>"I consider (...) as a decisive factor in choosing an employee"</i>	<ol style="list-style-type: none"> <li>1. Strongly disagree</li> <li>2. Disagree</li> <li>3. Neither disagree or agree</li> <li>4. Agree</li> <li>5. Strongly agree</li> </ol>
		Ownership/shares in the company		
		Options/vesting agreements		
H2	<i>Entrepreneurial Mindset Profile (EMP)</i>	Personal traits score	<i>"How well does this describe you as a person?"</i>	<ol style="list-style-type: none"> <li>1. Does not describe me</li> <li>2. Describe me slightly well</li> <li>3. Describes me moderately well</li> <li>4. Describes me well</li> <li>5. Describes me very well</li> </ol>
		Personal skills score		
	<i>Individual preferences</i>	Financial preference for risk	<i>"Which of the alternatives would you choose?"</i>	<ol style="list-style-type: none"> <li>1. Flat salary of 500k</li> <li>2. 400k with bonuses up to 200k (50% chance of success)</li> <li>3. 300k with bonuses up to 800k (25% chance of success)</li> </ol>
H3	<i>Background, experience and affiliation with startups</i>	Gender	<i>"What is your gender?"</i>	<ol style="list-style-type: none"> <li>1. Male</li> <li>2. Female</li> <li>3. Other</li> </ol>
		Age	<i>"How old are you?"</i>	<ol style="list-style-type: none"> <li>1. 21-25</li> <li>2. 25-29</li> <li>3. 30 +</li> </ol>
		Study background	<i>"Which university are you currently enrolled at?"</i>	<ol style="list-style-type: none"> <li>1. NHH</li> <li>2. NTNU</li> <li>3. UIB</li> <li>4. BI</li> </ol>
		Socioeconomic status	<i>"I consider my family's financial situation as"</i>	<ol style="list-style-type: none"> <li>1. Below average</li> <li>2. Average</li> <li>3. Above average</li> <li>4. Wealthy</li> </ol>
		Company size	<i>"Which of the alternatives would you choose?"</i>	<ol style="list-style-type: none"> <li>1. A big and well known company</li> <li>2. A middle sized company</li> <li>3. A small company</li> </ol>
		Affiliation with startups	<i>"Have you been involved in a startup?"</i>	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
		Experience with startups	<i>"Do you have any entrepreneurs in your family?"</i>	
H4	<i>Company reputation and workplace environment</i>	Company reputation	<i>"I consider (...) as a decisive factor in choosing an employee"</i>	<ol style="list-style-type: none"> <li>1. Strongly disagree</li> <li>2. Disagree</li> <li>3. Neither disagree or agree</li> <li>4. Agree</li> <li>5. Strongly agree</li> </ol>
		Location		
		Autonomy		
		Flexibility		

Table 4: Overview of independent variables. Data received from own survey.

For the first hypothesis, we have measured the respondents' preferences for different financial compensation structures by dividing it into three categories used as independent variables: 1) salaries, 2) ownership/shares in the company, and 3) options/vesting agreements and equity. Here, the respondents were asked to answer the question "*I consider (...) as a decisive factor in choosing an employer*" on a five-point scale from "Strongly disagree" to "Strongly agree".

To answer the second hypothesis, finding out whether risk aversion was significantly different from other personal characteristics, we used two different steps. First, we used Davis et al.'s (2015) framework for EMP, dividing the questions into seven questions for traits and seven questions for skills. Here, the question was "How well does this describe you as a person", where the respondents could answer the questions from a five-point scale from "Does not describe me" to "Describes me very well". One of the questions in traits was "I am willing to take a certain amount of risk to achieve...". Two independent variables for traits and skills were created based on the average from the seven questions within the two categories of the EMP-framework. Furthermore, we created a question measuring preference for risk. The respondents were asked the question "Which of the alternatives would you choose?", where the alternatives were "flat salary of 500 000 NOK", "salaries of 400 000 with bonuses up to 200 000 (50% chance of success)", and "300 000 NOK with bonuses up to 800 000 NOK"(25% chance of success)". The probability estimate was that every alternative would on average receive 500 000K, but the preference of risk for reward would differ between the individuals.

To answer the third hypothesis, we first created questions regarding the general information about the participants like their study gender, age, and study background. The age of the students were divided into three categories: "21-25", "25-29", and "30+". This was done to make the later analysis less complicated. Study background was first asked about which school they participated at, where the alternatives were "NHH", "NTNU", "UIB", and "BI". To later be able to confirm their degrees, we created a "text box" where the students could type their major/minor. Based on participants' degrees, we created two independent variables for economic and engineering students. All of the participants at NHH and BI were economics students, but the degree varied among the respondents from NTNU and UIB.

To measure the socioeconomic background of the students, we asked "I consider my family's financial situation as..", where the respondents could rate their families income in four alternatives "Below average", "average", "Above average", or "wealthy". The purpose of

socioeconomic status was not to map the family's income or monetary value but rather to map the extent of how perceived social status influences choices. This was done by asking the respondents how they considered their family's financial status, using a scale rating from "below average" to "wealthy". Each category was made so we could use the responses as independent variables later. To see whether the size of the company would affect the students' choice of workplace, we created a question asking "Which of the alternatives would you choose?", where the respondents could choose between three alternatives 1) A big and well known company, 2) A middle sized company, and 3) A small company. To map the respondents' experiences and affiliation with startups, we asked the following questions "Do you have any entrepreneurs in your family", and "Have you been involved in a startup?". The question had alternatives with binary outcome, simply by using "yes" and "no" as answers.

To answer the fourth hypothesis, we had one question to address several organisational factors to work as independent variables. To construct the four independent variables: 1) Company reputation, 2) Location, 3) Autonomy and 4) Flexibility, the same question: "*I consider (...) as a decisive factor in choosing an employee*" on a five-point scale from "Strongly disagree" to "Strongly agree", were used.

## 4.4 Limitations

### 4.4.1 Validity

Golafshani (2003, p. 602) defines validity as "whether the research truly measures that which it was intended to measure or how truthful the research results are". Saunders et al. (2016) divides the term into internal- and external validity. Internal validity is the extent to which we can draw confident causal conclusions (Campbell, 1957), explaining the extent to which findings can be attributed to interventions rather than any flaws in your research design. In other words, the internal validity is the degree of cause-and-effect correlation related to what has been conducted and what has been the outcome. The procedures done during the research can be affected by various variables, and the validity will give assumptions of how confident you can be of the outcome. Internal validity in questionnaires can be separated into three dimensions: Content validity, Construct validity (Saunders et al., 2016), and Criterion-related validity (Lucko & Rojas, 2010).

Content validity in questionnaires refers to the questions used. It can be defined as “the extent to which the measurement device provides adequate coverage of the investigative questions” (Saunders et al., 2016, p. 450). When formulating the questions, research was examined in depth, and assumptions had to be made to take a stand related to various definitions of terms. Sufficient time was used to filter questions not necessary and/or essential to the thesis. Overlapping questions were removed, both before and after the tests were conducted. Lucko and Rojas (2010) emphasizes criterion-related validity as making accurate predictions based on the given questions. Many variables in the collected data could potentially not be explainable through the questions asked. Correlation analysis tools were used on every question being answered to ensure criterion-related validity. According to Saunders et al. (2016, p. 450), construct validity refers to the extent to which a set of questions measures the presence of the construct you intended them to measure. In other words, the construct validity involves generalising from how well the tests being constructed are measuring the actual intended topics.

External validity is about “the degree to which the study results can be generalised to other relevant circumstances” (Saunders et al., 2016, p.716). As the students were enrolled at Norwegian universities, it could be possible to generalise similar observations between other Nordic countries as they are relatively similar in the cultural, economic and political factors. At the same time, there is no measurement that the students participating are from Norway, as the universities have international students enrolled as well.

#### 4.4.2 Reliability

A questionnaire’s reliability refers to whether results are consistent over time and can be reproduced under a similar methodology (Golafshani, 2003). Thus, a high degree of reliability is essential. Participant error is about factors that could lead to altering how a participant performs (Saunders et al., 2016). The invitations’ information was relatively limited and broadly summarised, to prevent participants from changing their views or behaviour in different ways. The limited structure in the invitation (Appendix I) and introduction to the survey did not mention the intention of the research measuring entrepreneurial intention, but rather explaining the choice of workplace. This was done to avoid potential biases and make the data more reliable. To limit the respondents’ ability to change their information, a feature that prevented the participants from going back to earlier pages was applied.

Moreover, breaks between questions were created strategically, where the more personal questions were organised on their own page. Considering the likelihood of students participating while they were tired and assuming that this could lead to less focus, the invitation and reminders were sent at 10:00 am. Efforts were also made to prevent the possibility of incorrect responses in the survey, also named as participant bias (Saunders et al., 2016). As mentioned earlier, every invitation had highlighted the information about anonymity and confidential use of the data being collected for the research context only. By emphasising the importance of anonymous participation, the goal was to prevent effects on social desirability bias (Gittelman et al., 2015). It was also important to present the questionnaire in a judgment-free manner, which was done by formulating the questions and describing the invites as objectively and socially acceptable as possible.

As mentioned earlier, a test-retest was done during the design phase of the survey questions. This was done by controlling ten different students at NHH with three days' space between data collection. The students were chosen randomly at the school, where they were informed briefly of the research and whether they would participate voluntarily to help with the thesis.

## 4.5 Models

As all dependent variables have binary responses probit regression models will be used in the analysis. Probit models use the standard normal cumulative distribution function  $\Phi(\cdot)$ , to ensure that the probabilities are between one and zero.

The formal probit model formula is:

$$E(Y_i|X_i) = P(Y_i = 1|X_i) = \Phi(\beta_0 + \beta_1 X_i),$$

where  $\Phi(z) = P(Z \leq z)$ ,  $Z \sim N(0,1)$  and the coefficients  $\beta_j$  indicates an increase in probability when positive and decrease in probabilities when negative.

The model uses a nonlinear maximum likelihood estimator. Probit models overcome the issues with fitted probabilities less than zero or above one and the constant partial effect of explanatory variables, which are the main drawback of linear probability models (Wooldridge, 2012). Furthermore, probit models simplify several specification problems due to the properties of the normal distribution (Wooldridge, 2012).

Even though probit models are better suited for regressions with a binary response, we find it crucial to emphasise this type of model's main drawbacks. Firstly, issues concerning endogenous explanatory variables arise. Secondly, the model assumes a normal distribution in the residuals. Lastly, issues regarding heteroscedasticity can occur (Wooldridge, 2012).

## 5 Analysis

This chapter will present the data from the questionnaire and our analysis performed in the study. To analyse the survey data, we have used descriptive statistics and performed different types of tests. We used probit regression models to see the correlation between variables, enabling us to answer the hypotheses. To obtain insights into potential underlying reasons, we have conducted t-tests and multivariate analysis of variance (MANOVA) to study differences between two sub-samples. Correlation matrices were created to check correlation coefficients between all variables in the models.

### 5.1 Descriptive Statistics

#### 5.1.1 The sample

As mentioned in section 4.2.1, we are left with 318 observations after undertaking the data cleaning. The sample consists of 190 males and 128 females. Among these, 66 have been involved in a startup before, while 252 have no prior experience. The sample consists mainly of people in their twenties, where 264 are between 21 and 25, 43 are between 26 and 29, and only 11 are over 30 years of age. The master's students from the survey mainly major in Economics (84%), whereby 243 students are enrolled at NHH and 25 participants at BI. The sample also includes civil engineering students (16%), with 44 participants from NTNU and six from UIB. As the thesis focuses on mapping factors that influence workplace choice, we wanted to explore the respondents' current occupation. There was a relatively even distribution among the respondents regarding which step in the job application process they found themselves in. Approximately one-third had already accepted a job offer starting after completing their studies, one-third were currently applying, and the rest were not looking for a job after graduation. Nearly 20% of the respondents planned to work in startups after graduation. For the question regarding whether the precarious economic situation influenced their workplace choice, 40% of the respondents confirmed that it affected them.

### 5.1.2 Background

To consider the student's socioeconomic status, a measurement was created to include their family's financial situation. The online survey showed that 8% of the respondents were below the average. Most participants consider themselves either average 30% or above average 50%, and 12% respondents considered themselves wealthy. Looking at earlier experiences and affiliation with startups, approximately one-third of the sample were found to have entrepreneurs in their family. Moreover, 20% of the respondents had startup experiences.

### 5.1.3 Importance of financial and organisational factors

In order to measure the factors affecting the choice of workplace, Table 5 shows the descriptives of financial and organisational factors for the whole sample ranging from one to five. When looking at the financial compensations, salaries scored the highest on average (3.92), followed by ownership (2.95) and options as the least preferred variable (2.95). Regarding the organisational factors, the location was most important for students (4.19), whereas autonomy scored the lowest on average (3.69).

	Mean	Median	Sd	Min	Max	Nr.obs
Salaries	3.92	4.00	0.75	1.00	5.00	318
Ownership/Shares	2.95	3.00	0.92	1.00	5.00	318
Options	2.95	3.00	0.84	1.00	5.00	318
Company Reputation	4.08	4.00	0.67	1.00	5.00	318
Location	4.19	4.00	0.84	1.00	5.00	318
Autonomy	3.69	4.00	0.75	1.00	5.00	318
Flexibility	3.93	4.00	0.74	1.00	5.00	318

Table 5: Descriptive statistics. Data received from: Qualtrics.

According to the correlation matrix (Table 6), the importance of Ownership/Shares is, not surprisingly, positively correlated with Options (0.68). Furthermore, it shows a positive

correlation between Autonomy and Flexibility (0.52). Values between 0.5 and 0.7 reflect moderate positive correlation between the variables (Mukaka, 2012).

	1	2	3	4	5	6	7
1. Salaries	1.00						
2. Ownership/Shares	0.19	1.00					
3. Options	0.11	0.68	1.00				
4. Company Reputation	-0.00	-0.13	-0.10	1.00			
5. Location	0.04	-0.18	-0.14	0.27	1.00		
6. Autonomy	0.09	0.09	0.10	0.11	0.11	1.00	
7. Flexibility	0.07	0.11	0.14	0.09	0.17	0.52	1.00

Table 6: Correlation Matrix. Data received from: Qualtrics.

## 5.2 Regression models

The conducted probit regressions used in the following analysis are displayed in Table 7. Models (1) to (5) use “Startup intention” as dependent variable, while Model (6) use “Option agreement”, both described in section 4.3.2.

To verify the models, we performed Breuch Pagan tests on all regression models to check for heteroscedasticity. The results implied no homoscedastic errors in the models. We further calculated McFadden  $R^2$  for each model, where the explanatory power ranged from 6% to 22%, which is quite high for complex psychological constructs such as decision-making behavior. For Regression 1, which was the model with the lowest explanatory power, a Pearson’s Chi-squared was conducted to investigate goodness of fit. The test showed significant results on a 10% level, implying that at least one coefficient is different to zero (Appendix III). Lastly, variance inflation factors (VIF) tests were performed on the models, with more than two terms, to ensure no possible issues with multicollinearity. All test scores were below 2 (Appendix III), which indicated low correlation as VIF scores above 5 implies a high correlation between variables (Lindsey & Sheather, 2010).

	<i>Dependent variable:</i>					
	Startup (1 = Yes, 0 = No)					Option agreement (1 = Yes, 0 = No)
	(1)	(2)	(3)	(4)	(5)	(6)
Salary	-0.018 (0.111)					
Options	0.208** (0.106)					
Company reputation	-0.160 (0.126)					
Location	-0.222** (0.100)					
Flexibility	0.253** (0.120)					
Yes to startup						0.541** (0.215)
Male		0.337* (0.195)				0.824*** (0.153)
Engineering		0.042 (0.246)				
Average		0.366* (0.211)				
Below average		0.886*** (0.334)				
Wealthy		0.121 (0.297)				
Experience		0.969*** (0.197)				
Affiliation		0.532*** (0.189)				
Company size		0.533*** (0.138)				
Personal Traits Score			0.618*** (0.162)			
Personal Skills Score			0.200 (0.180)			
Risk willingness				0.413*** (0.094)		
Medium risk					0.149 (0.179)	
High risk					0.957*** (0.275)	
Constant	-0.860 (0.837)	-2.888*** (0.375)	-3.639*** (0.696)	-2.330*** (0.353)	-1.047*** (0.139)	-0.089 (0.115)
Observations	318	318	318	318	318	318
Log Likelihood	-147.473	-122.460	-145.053	-145.695	-150.719	-180.415
Akaike Inf. Crit.	306.947	262.920	296.106	295.389	307.438	366.829

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

Table 7: Regressions. Data received from: Qualtrics.

## 5.3 Financial compensation

To answer the first hypothesis, we investigated the attractiveness for three types of financial compensation: salaries, shares/equity and options/vesting agreements. Regression 1 (Table 7) was created to get an overall pattern of how the factors differentiated between the respondents who planned to work in startups and others. As the dependent variable has binary outcomes, we used a probit model, making a direct numerical interpretation meaningless. To avoid multicollinearity issues, we did not use correlating factors as independent variables. As options/vesting agreements correlated with ownership/shares (Table 7), we excluded ownership/shares. When deciding between factors, we chose the factor with the highest mean, and the lowest standard deviation. Furthermore, as discussed under section 2.1, the options/vesting agreements have additional positive effects that could increase motivation when recruiting or retaining employees.

### 5.3.1 The financial compensation structures

The regression shows a positive relationship between the importance of options and respondents planning to work for startups, which is significant at the 5% level. The practical interpretation is that respondents scoring higher on options are more likely to plan to work for startups. It also implies that the respondents who scored lower on salary, are less likely to plan to work for a startup. However, the results are not significantly different between the groups, which makes interpretation meaningless.

### 5.3.2 Options and vesting agreements

Since the importance of options was positively correlated with the respondents planning to work for startups significantly at a 5% level, the further analysis looked into the respondents willing to substitute salary for options. This was done to see whether this form of compensation can allow startups to become more attractive even when they lack capital.

In total, 68% of the respondents were willing to accept lower salaries if they were compensated with shares or stock options. We found that the differences were significant at a 1% level between genders by conducting a t-test. As many as 80% of the males in our sample were open

to lower salaries in exchange for options, compared to approximately 49% of the females. Only 52% responded that they were aware of the concept of options and taxation. As mentioned under section 2.1, options will have a higher risk compared to a fixed salary.

These findings implicitly state that some students are willing to take a certain amount of risk, by having stock options as compensation for lower salaries even without knowledge about the subject.

Consequently, two t-tests were performed. The first test was created to examine differences between genders and knowledge about options and taxation, which showed a significant positive correlation between males and the knowledge of the concepts. The second test was created to investigate differences between acceptance for options and the students' knowledge of options and taxation. The second test implicated a higher percentage of willingness to choose options for the group with previous knowledge. However, the test results were not significant, and we cannot make any interpretations.

Further, we performed a probit regression analysis with the acceptance for stock options as the dependent variable (Regression 6). The independent variables were gender and whether the respondent planned to work for a startup. Both independent variables were significant, respectively, at 1% and 10%. The interpretation of the model is that being a male and planning to work for startups are different factors individually positively correlated to openness to options as compensation.

The fact that 68% of the population were willing to accept options as compensation for salary, supports the hypothesis that financial compensation structure can increase the attractiveness for master's students in Norway. Additionally, this is further backed up with findings from Regression (1), where the respondents who scored high on the importance of options were positively correlated with planning to work in a startup at a 5% level. Reversely, Regression (6) showed that the group that was planning to work in a startup, were more significantly more likely to be open for options as compensation at a 10% level. This indicates that startups can become more attractive by offering options as compensation, even when lacking the capital to offer competitive salaries. Hence, we accept the first hypothesis.

## 5.4 Personal characteristics

To answer the second hypothesis, we wanted to see whether risk aversion were the personal characteristic that differentiated most for the individuals with startup intentions and others.

This was done using the results from the EMP-framework and Regression (3), (4) and (5).

### 5.4.1 Entrepreneurial mindset

To understand whether the students' traits and skills were correlated with entrepreneurial intentions, we first conducted a regression (Regression 3) using the respondents' average trait and skills score. Using "Yes to startup" as a dependent variable and personal traits and skills score as independent variables, we were able to analyse the data. In line with earlier research, we found a positive relationship, at a 1% level, between higher scores on traits and respondents planning to work for startups after graduation. We did not find any significant effect when measuring the average on all the variables in skills collectively.

To further analyse each factor, we created a table comparing the factors by measuring the questions average answers on traits and skills individually (Table 8). Here we split the data into two sub samples - respondents planning to work in startups or not. Then we used MANOVA to compare the differences between the samples. The significance levels used in the table are '\*\*\*\*' 0.01, '\*\*' 0.05, and '\*' 0.1. We found a significant multivariate effect in five out of seven personality traits and four out of seven skills from the table. The test results show a significantly higher average for all nine factors among the group that plan to work with startups.

Furthermore, we see that future focus and interpersonal sensitivity score lower on average for those who plan to work with startups. However, we would like to emphasise that there is little variation between the variables showing negative correlated values and that none of these findings are significant. Table 8 shows that risk acceptance is the characteristic with the most variation on average between the groups. As the result is significant at a 1% level, we accept the second hypothesis. Furthermore, we find it interesting to dig deeper into this characteristic. To validate the models, we constructed correlation matrices for both groups included in Appendix III.

Scale	Sample 1 - Yes (62) Mean	Sample 2 - No (256) Mean	S1-S2 Diffence	F value	MANOVA Pr(>F)	Significant
<b>Personal Traits</b>						
Interdependence	2,48	1,97	0,51	11,10	0,001	***
Limited Structure	2,84	2,43	0,41	6,86	0,009	***
Nonconformity	3,63	3,02	0,61	16,90	0,000	***
Risk Acceptance	3,92	3,27	0,65	23,05	0,000	***
Action Orientation	3,31	3,11	0,20	1,58	0,210	
Passion	4,15	3,94	0,21	3,03	0,083	*
Need to Achieve	4,38	4,25	0,13	1,34	0,250	
<b>Skills</b>						
Future Focus	3,86	4,00	-0,14	1,51	0,220	
Idea Generation	3,44	3,00	0,44	8,60	0,004	***
Execution	3,40	3,05	0,35	5,44	0,020	**
Self-Confidence	3,96	3,68	0,28	4,21	0,041	**
Optimism	3,93	3,53	0,40	6,90	0,009	***
Persistence	4,39	4,28	0,11	0,62	0,433	
Interpersonal Sensitivity	3,51	3,52	-0,01	0,00	0,965	

Table 8: Scale of EMP: Traits and skills. Data received from: Qualtrics.

#### 5.4.2 Risk aversion

To further analyse whether risk aversion was correlated with the group who planned to work for a startup or establish a company, two additional probit models were conducted (Table 7). The reasoning behind looking at the variables in different models was to avoid multicollinearity problems as different variables measuring the same characteristic will correlate. The first variable directly asked for the risk willingness in Regression (4). In contrast, the variables in Regression (5) were based on three different alternatives for financial compensation structures involving various degrees of risk.

Regression (4) shows a significant positive correlation at a 1% level between the group who planned to work for startups and risk willingness, confirming the findings from Table 8. The interpretation of the model is that respondents scoring higher on risk willingness are more likely to participate in startups.

Regression (5) shows that a preference for the riskiest compensation alternative with a larger potential upside correlates (1% level) with respondents planning to work in startups. Furthermore, the results indicate a significant negative correlation between the respondents who preferred the safest financial compensation and the group planning to work for a startup, represented by the intercept.

To check whether the uncertain economic situation affected the sample, we tested for correlations between the respondents who found the uncertain economic situation a decisive

factor in their choice of workplace and whether they want to work for a startup. However, none of the results were significant. We also checked for differences in risk aversion between genders by conducting a t-test using males and females as samples comparing scores on risk acceptance. The results showed differences between the genders significant at a 1% level, where females were more risk averse than males.

## 5.5 Background, experience and affiliation

To answer the third hypothesis, regarding whether earlier experiences, socioeconomic background and affiliations with startups would affect the respondents intentions of participating in startups, Regression (2) was created.

The model's independent variables look at gender, study background, socioeconomic background, startup experience, affiliation, and preference for company size. Gender was found significant at a 10% level. The interpretation of this variable is that there is a positive relationship between being a male and planning to work for a startup. The results also indicate that engineering students more often plan to work for startups. However, this result is not significantly different between the groups. Thus, we cannot interpret this variable.

Furthermore, the regression shows a positive relationship with two socioeconomic groups and planning to work for startups. Respondents considering their family's financial situation as below average or average were correlated with startup intentions, at respectively 1% and 10%. The model also implicates a positive correlation for the group considering their family as wealthy, and planning to work in startups. However, the result is not significant making us unable to interpret the variable. The regression shows a positive correlation, significant at a 1% level, between a preference for a smaller company and respondents planning to work in startups. Additionally, the results show a positive relationship, significant at a 1% level, between respondents with startup experience and planning to work for startups. Similar findings were found for affiliation with startups. The interpretation of these coefficients is that both personal experience with entrepreneurship, and having an entrepreneur in their family make the respondent more likely to plan working for a startup.

To investigate the two latter findings in depth, two t-tests were conducted. The results from the tests confirmed the regression results, with differences between the groups significant at 1%

level in both tests. Approximately 47% of the individuals with earlier experience planned to work for a startup after graduation, compared to only 12% of the respondents without startup experience. Furthermore, having an entrepreneur in the family made a respondent almost twice as likely to plan to work for a startup. To summarise, the models show that socioeconomic factors, experience and affiliation with startups all have a significant effect on the choice of workplace. Hence, we accept the third hypothesis.

## 5.6 Organisational factors

As presented in the descriptive statistics (Table 5), factors other than financial compensation also seem to play an important role in the choice of workplace. We found that company reputation, location, and flexibility were considered more important than financial compensation variables.

To answer the final hypothesis, finding out whether the corporate reputation and the workplace environment affected the respondents startup intention, Regression (1) was used.

The results showed a negative correlation, significant at a 5% level the importance of location and respondents planning to work for startups. Furthermore, we found a positive correlation between the importance of flexibility and the group planning to work for startups significant at a 1% level. Thus, we accept the last hypothesis.

## 6. Discussion

In this part, we will discuss the most interesting findings from our analysis. Additionally, we will present possible reasons behind the correlation and potential opportunities based on our findings. As this is a correlation study, we emphasise that none of our findings should be interpreted as causal. However, we believe the findings might be interesting to consider for both startup companies looking to acquire new employees and further research regarding the subject.

### 6.1 Attractiveness of financial compensation

The first hypothesis's goal was to find out whether the financial compensation structure could allow startups to become more attractive. The descriptive statistics showed that salaries are the most important financial factor when considering the sample's average responses. This is in

line with research of individuals from the US (Wiley, 1997). By dividing the group into individuals having entrepreneurial intention and those who did not, we found no significant differences regarding the importance of salaries.

There can be several reasons for the lack of significant differences between the respondents planning to work for startups and others. First and foremost, it is essential to emphasise that the survey sample consists of master's students. Such a group will expect a higher wage level than the average. As shown in the descriptive statistics, participants find salaries relatively important and, compared to other financial factors, it has lower variance. Lower variance in total will probably be reflected as less variance within the groups.

However, we find a positive relationship between the importance of options and respondents planning to work within startups at a 5% level. The practical interpretation is that respondents within this group evaluate the importance of options significantly higher than the group not planning to work for startups. For newly established companies that tend to meet challenges regarding capital constraints, offering equity in options is an alternate way to stay competitive when hiring employees. We believe that the hypothesis's acceptance illustrates a considerable possibility for startup companies to acquire graduates as employees, reduce costs, and align interests between employers and employees.

#### 6.1.1 Options as an alternate compensation

Our research suggests that startup companies have an immense opportunity to attract employees through different equity forms as compensation. Our quantitative survey of 318 master's students showed that 68% of the respondents were willing to lower their potential salaries for option agreements. Thus, using options seems to play a key role for startups to attract potentially highly skilled or experienced employees in recruiting processes. It should also be mentioned that offering shares in the company is not common for established and larger companies, especially when recruiting graduates, making it a tool that might help gain a competitive advantage for newly established firms.

As found by Burton et al. (2017), the wages of employees are strongly influenced by the firm's size. Since startups tend to struggle with competitive wages, negotiation of options seems to be an influential choice of compensation for potential employees. Therefore, shares as option

agreements can optimise the cost structure, and the motivation and attractiveness of the company. Additionally, acquiring new employees will be expensive and time-consuming for startups already constrained by resources (Bygrave & Zacharakis, 2010). We consider the willingness to receive options as compensation an attribute derived from various factors. Firstly, by sharing the owners' risk, employees would receive a higher payment when the startup obtains strong results.

As lower salaries in exchange for options represent a riskier alternative (Section 2.1), we argue that the positive correlation between options and respondents with startup intentions might be a consequence of higher risk aversion. This is in line with the research of Eckel and Grossman (2008), who suggest the degree of risk aversion tends to be reflected in all aspects of an individual's decision making. In contrast to salaries, the options and vesting agreements can also incentivise the employees to stay in the company. This can be done by the formal structure of the vesting agreements, adding dates or other milestones for triggering shares in the startup. Thus, usage of this form of financial compensation can help to both acquire and retain employees.

Our results also indicate significant distinctions between genders in preferences for options, where males scored higher in openness to lower salaries in exchange for options. There are strong indications that options will be more appealing for groups that score low on risk aversion. Consequently, a possible reason for this finding is also substantiated by the respondents' different degrees of risk aversion. This relation is further discussed in section 6.2.

Furthermore, males rated options as a more important factor in workplace choice compared to females' responses. We believe that one reason for this might be knowledge of the subject, supported by our research results, where we find a positive correlation. The fact that men are more open to options substantiates the higher percentage of males planning to work for startups.

## 6.2 Personal characteristics and entrepreneurial intention

As seen from the analysis (Section 5.4), we found multiple personal attributes affecting the entrepreneurial intention. The individual characteristics of the students showed significant differences among the groups that planned to participate in startups. By using the framework developed by Davis et al. (2015) measuring EMP, we found significant values for multiple

skills and traits. In line with Davis et al. (2015), traits correlated significantly (1%) higher on entrepreneurial intention than skills. From the analysis (Table 7), scoring high on the following traits scored significantly differently for the respondents planning to participate in startups: Interdependence (1%), Limited Structure (1%), Nonconformity (1%), Risk Acceptance (1%), and Passion (10%). Even though the skills were not significantly correlated with startup intention as a group, four skills were significantly higher for the group planning to work for startups. Idea Generation (1%) was the skill with the most considerable difference between the groups. One possible reason behind this is that most startups arise from an idea to meet an unmet customer need in the market. Therefore, it can be argued that the skill to generate ideas is the reason behind working for a startup. Furthermore, Optimism (1%), Execution (5%), and Self-Confidence (5%) were also significantly higher for the group. Based on these findings, we believe the EMP framework fits well to describe Norwegian masters students with entrepreneurial intention.

### 6.2.1 Risk aversion

As risk is considered a natural aspect in various settings when working for a startup (Ries, 2011), we hypothesised that risk aversion was the most influential factor for workplace choice. The variable from the conducted measurement of EMP showed that the biggest difference on average between the groups was willingness to take risk, thus confirming our hypothesis. Regression (4) and (5) further backed up this result, showing that financial compensation with low risk was negatively correlated with entrepreneurial intention.

Our analysis found a positive correlation between males and risk acceptance. This might be explained by social influence, environment, and role models or be a result from natural causes, such as higher testosterone levels. In line with Eckel and Grossman (2008), we found a reflection of this in many aspects of the decision-making throughout our analysis. One could derive from these differences the positive correlation between males and financial compensation, including more risk, preferred salaries, shares, options, and vesting agreements. As all these alternatives are more common in startups, in addition to the fact that working for startups is a riskier choice, we find the positive correlation between males and respondents planning to work for startups as quite obvious. Furthermore, the lack of entrepreneurial participation among females could lead to two interesting findings. First, if the reason is not solely based on natural causes, it might be a huge potential to attract more female students into

entrepreneurship in Norway. Secondly, being aware of the differences between genders can be useful for startups, as it enables them to construct compensation structures based on individual preferences. As an example they can focus more on options with lower salaries when hiring males and vice versa, making startups more attractive to master's students in Norway.

### 6.3 Experience, affiliation and socioeconomic background

Respondents with startup experience were positively correlated with planning to work for startups at a significant level, in line with Lafontaine and Shaw's (2016) suggestions that earlier entrepreneurs have a higher possibility of joining startups. One possible explanation could be that experience might decrease the respondents perceived risk of entrepreneurship. Another reason might be that earlier experience both as success or failure will increase knowledge, which further leads to better decision making and understanding of the structure of startups. As Shepherd (2003) suggested similar tendencies for founders in the US, our findings supplement the literature within the field in Norway. Furthermore, this holds for all respondents earlier involved in startups in general, not exclusively the entrepreneurs. Additionally we find that the respondents with startup experience also preferred working for a small company. As most startups are considered small, their experience might affect their choice to work for similar companies.

We believe these findings might be useful for startups for several reasons. Firstly, we recommend startups planning to acquire employees to involve themselves in the environments with earlier startup experience. Examples of such environments can be organisations such as Start Norway, a group working at multiple universities in Norway involving students in entrepreneurship. Secondly, we believe the insight sheds light on the opportunity to hire or invest in talents early, through different channels such as an internship or part-time positions. Such employment can work as relatively cheap competent labour. It might also increase the chance that the person chooses a career in startups, increasing the likelihood of employment.

In line with earlier experience from the respondents in startups, we also find that earlier experience from family members with startups positively correlates with respondents planning to work for a startup. This finding strengthens the belief that being exposed to something increases the likelihood of it continuing. The finding further substantiates the importance of our recommendation to reach out early to potential future employees.

In line with research (Evans & Jovanovic, 1989; Fairlie, 1999), wealthy people are more likely to become entrepreneurs of capital-intensive startups. Therefore, we found it interesting to investigate if socioeconomic factors affect the choice of workplace. In contrast to earlier studies, we did not find significant correlations for respondents categorising their family's financial situation as wealthy. On the other hand, our findings suggest a significant positive correlation between the respondents planning to work for startups and the group who considers their family's financial situation below average and average. We find it prudent to mention that our data does not differentiate between types of startups, making the comparison with asset-heavy startups less relevant. Another possible explanation for this can be that Norwegian masters students' decision-making differs from the populations in other studies. Another reason might be that as the population is relatively homogenous, the respondents' differences are smaller, resulting in less variation of behavior and decision-making.

## 6.4 Organisational factors

Our goal for the fourth hypothesis was to investigate whether corporate reputation and workplace environment would affect the choice of working at startups. The thought behind choosing corporate reputation and location as a variable was derived from the notion that these factors would be more important for students who preferred established companies. Conversely, we estimated that high scores on the workplace environment consisting of autonomy and flexibility would be more attractive among the participants with entrepreneurial intention. The findings showed a positive correlation between startup intention and a high need for flexibility. As startup companies tend to have a less hierarchical structure and broader work tasks, the results were not surprising.

Location was negatively correlated with the group planning to work in startups. One reason for this could be that individuals with startup intentions are more interested in the company itself, making the location less important. As most startups have scarce resources, the low importance of location amongst students in Norway might indicate that the resources should be prioritized for other purposes. This could further lead to more effective cost management.

The lack of differences between the groups on company reputation can also be explained. As new companies have a less than well-known reputation by nature compared with established

companies, we deemed there might be a negative relation between the group planning to work for startup companies and the importance of company reputation, which the model also implicates. However, this result is not significantly different between the groups. A possible reason for this can be that a company's reputation is affected by more than just size. Larger well-known companies can also have a bad reputation, and startups might have an excellent company reputation due to organisational decisions.

## 7. Conclusion

According to the Norwegian government, the most common reasons for lack of entrepreneurial activity were high innovation costs, lack of finance, and problems in retaining or recruiting qualified employees. Due to startups' tendency to have scarce resources, this thesis sheds light on various factors that influence entrepreneurial participation and investigate whether financial compensation could make startups more attractive. The purpose of the research was to bring new insights that could lead to a better understanding of the lack of innovation activity in Norway. By investigating engineering and economic students at a master's degree level across multiple universities, we wanted to see how startups could be more effective when recruiting or retaining employees, given the lack of finance. This was done by measuring the attractiveness of financial compensation among the respondents and examining whether personal characteristics would affect the choice of workplace. We constructed an online survey, gathering over three hundred responses, where the results gave us numerous interesting findings.

We find support to accept all our formed hypotheses. Startup companies can personalise their compensation structure to become more attractive, even as they lack the capital to offer competitively market wages. Based on our findings, we recommend a wider usage of options for startups as compensation for salaries. Options have additional positive effects as they align the interests of employees and the company. Furthermore, it helps attract and retain motivated employees. Using a framework measuring the entrepreneurial mindset of master's students in Norway, our findings suggest that traits are more important than skills for individuals with entrepreneurial intentions. Risk willingness was the trait with the largest difference on average, making it the most important factor for students to enter entrepreneurship as either founders or employees. As the risk aversion of a respondent can be argued to affect all aspects of decision-making, this finding supports and strengthens other important findings throughout the analysis.

Therefore, it gives a deeper understanding of potential underlying mechanisms resulting in differences between the groups.

Various characteristics, such as gender and socioeconomic background, are found to be different between the groups. Our models suggest that being a male and considering your family's financial situation as below average strengthens entrepreneurial intentions. This could arguably be an underlying reason for the significantly higher risk aversion among males. Additionally, this group could explain the preference and willingness for more risky financial compensation structures, which startups tend to offer more often than established companies. Furthermore, our results imply that experience and affiliation with startups are positively correlated with respondents planning to work for startups. Consequently, we recommend startups to increase their exposure to students earlier to increase their attractiveness among the group.

Lastly, our findings suggest that the importance of organisational factors such as location and flexibility are significantly different between the groups. Respondents planning to work for startups found flexibility more important compared to others. The location of the company, on the other hand, was found significantly less important. These specific findings can be argued to come from the natural differences between startups and well-established companies.

## 8 Final remarks

As we examine correlation and look at covariation between responses from the respondents in the survey, we find it important to emphasise that we do not draw causal conclusions. The purpose of this study is rather to discuss potential underlying factors for the choice of workplace, both to supplement the literature in the field of entrepreneurship and to be able to make suggestions on how startup companies can potentially become more attractive to master's students in Norway. In this chapter we will discuss potential limitations to the study and highlight identified suggestions for future research.

### 8.1 Limitations

The empirical results described herein should be considered in light of some limitations. First, issues related to collecting data through an online survey could lead to potential weaknesses.

Even though we used restrictions for valid participation and data cleaning techniques to remove specific responses, the accuracy of the answers is not guaranteed. Sampling errors or selection bias could have occurred as most of our respondents were students from NHH and NTNU. Our geographic scope is therefore limited to a certain degree for students in Bergen and Trondheim. Many of the master's students in Norway are outside these schools, restricting our findings.

Furthermore, some sub-groups from the sample could be insufficient size for accurate statistical measurement. Most of the responses collected were from economic students, whereas 20% of the respondents were enrolled in engineering degrees. There are also concerns regarding the socioeconomic measurement, where few respondents scored their family's income as either below average or as wealthy. Therefore, the law of small numbers could have affected the responses, leading us to not focus too much on groups with uneven responses in the thesis. Subjective answers like this also apply to the location variable, where respondents could have interpreted it as longer distances like cities, rather than rural /local. The conducted pretests did manage us to construct the questions, but with sufficient time to optimise the queries, more precise answers could have affected the data. Secondly, cultural biases could have occurred as we did not control whether the students were Norwegians or exchange students from other countries. International students also taking their master's degree in Norway could have perspectives that differ from those of Norwegians.

The time available to collect data may have limited some aspects of the conducted research. First, as the thesis is written in the autumn, there is reason to think that the sample would have been more aware or had decided on their career choice in the spring, being closer to the end of their degree. The choice of collecting data from anonymous participants led to not capturing cases that might influence the results. Moreover, following the same sample over time may have led us to study causal relationships, supplementing the correlations. We find it necessary to mention that factors other than the chosen included in the survey will influence such a comprehensive choice. Nevertheless, significant findings may help to provide a picture of factors that affect workplace choice.

## 8.2 Suggestions for future research

This study has investigated different aspects that could lead to a better understanding of Norway's low entrepreneurial activity. By focusing on the individual characteristics,

background and preferences of master's students and how these affect their workplace choice, we have managed to find several interesting findings. There are numerous gaps in the knowledge around entrepreneurial intention that follows from our results. Therefore, additional areas for further research have risen from the results obtained in the thesis. We found broad acceptance in students' willingness to receive financial compensation, particularly the group with entrepreneurial intention.

Further research may explain which financial compensation structure brings the most attractiveness to accepting working at a startup. It should be worth noticing that our study does not focus on where the balance between the importance of salaries and options is crossed. More precisely, what is the borderline where demand for salaries is satisfied? The balance between optimising the founders' and employees' interests in startups would help recruit and retain employees for entrepreneurs in Norway. As this study contains a sample that would fit better for recruiting employees and founders' intentions, further research on retaining employees is needed. The results indicating a lower weighting for startups' location may lead to valuable information, where a more rural location would give the startup more financial capacity. Furthermore, we recommend future research to focus on the findings regarding experience and affiliation with startups and how this could be applied to Norway's innovative activity. Is the lack of entrepreneurial activity a cultural problem? If so, where could the government improve this?

There is also room to supplement the results from the thesis with new research. In the conducted study, we focused on engineering and economics students, where there could be room for more proportionate shares between the groups. By comparing with more sub-groups, a more nuanced picture of the population could appear. Thus, further research on founders and startup employees may bring valuable information. Therefore, we would recommend future studies to examine the findings through experimental methods to find potential causal relationships for master's students or other populations' workplace choices. From the research, we found significant differences between genders. The difference could potentially be explained by the high degree of risk aversion and a lower score on preference for options. The lower share of females with entrepreneurial participation raises questions that would be interesting for the future. Research on precursors of gender differences may lead to interesting findings.

As mentioned in the limitations (section 8.1), we see multiple reasons for studying the topics at another time of the year, bringing a longitudinal perspective to the results. First, this research is conducted in a period that potentially may lead to differing opinions and behaviour from normal, writing in the middle of a global pandemic. Multiple respondents (nearly 40%) answered that the economic situation affected them in their future workplace choice. Secondly, the answers may be more precisely when conducted in a period closer to graduation for the master's students, as most of the individuals graduating in the spring would have made a decision already. Therefore, longitudinal studies or researching the area in other periods would bring further validity and reliability to the results.

Finally, we find the research shortcoming as a natural consequence of collecting data only using a quantitative methodology. By supplementing the research by conducting qualitative methods, in-debt explanations and causal relationships could be obtained. Among the benefits of qualitative methodology, flexibility, settings, attitudes, and context-related issues could be explained to a bigger degree. By using other methods, targeted samples and research approach, the behaviour-measurement will possibly reveal exciting results which are beyond the numbers alone.

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# Appendix I: Survey

## Survey design

Student Recruitment
Block Options

Dear Students,

Thank you for taking time to help us with our Masters Thesis.

The questionnaire is a part of our Masters thesis, and the results will be used to research different aspects of the decision-making process regarding work choice.

1. The survey takes approximately 4 minutes.
2. The survey is completely anonymous, and for academic purposes only.
3. Please answer the questions thoroughly.

Page Break

Q1 What is your gender?

Male

Female

Other

Q2 How old are you?

23-26

26-29

30-33

33 +

Q3 Are you a masters student?

Yes

No

Q4 Which university are you enrolled at?

Norwegian School of Economics (NHH)

Norwegian University of Science and Technology (NTNU)

The University of Bergen (UiB)

BI Norwegian Business School (BI)

Other

Q5 Please tell us your desired major and minor (Ex. Mechanical Engineering or Business Analytics).

Desired Major (optional)

Desired Minor (optional)

Q6 Where are you currently in your career?

Not currently looking for a job

Looking for a job

Have accepted a job offer after graduation

Other

Q7 Socioeconomic background

I consider my family's financial situation as

Below average	Average	Above average	Wealthy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Have you been involved in a startup?

Yes

No

Q9 Do you have any entrepreneurs in your family?

Yes

No

Q10 Will you, or do you plan to work for (or establish) a startup after graduation?

Yes

No

Q11 The uncertain economic situation we are currently in affect my choice of future workplace

Yes

No

Q12 Are you well known with the concept, and the taxation of options and equity?

Yes

No

Q13 I am willing to accept a lower salary if I receive shares or stock options as compensation

Yes

No

Page Break

Information to the following questions

Imagine you are in a position where you will have to choose between three job offers. They are all in the same industry, and the choice you make will exclusively differ from the statements described. Which of the alternatives would you choose?

Question 1/2

Flat salary of 500 000 NOK

400 000 NOK + bonuses with up to 250 000 a year (50% chance to get bonus)

300 000 NOK + bonuses with up to 800 000 NOK (20% chance to get bonus)

Question 2/2

A big and well-known company in the market with many employees. The company has a good reputation and are popular employers among students. The company has a vertical hierarchical structure.

A middle-sized company known to most people in the market, but with a better capability working agile in small dynamic teams. The company has a vertical hierarchical structure, but to a lesser degree than alternative 1.

A small and dynamic team of people exploring new possibilities, where the most people who know the company is working in the market. The company has a vision of changing the market standard and a product being capable of changing the current processes with new technologies.

Page Break

Q15

I consider (...) as a decisive factor in choosing an employer

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Salaries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ownership/ Shares in the company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Options/ Vesting agreements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company reputation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ESG (sustainability and societal impact)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autonomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q16

How well does this describe you as a person? (Traits)

	Does not describe me	Describes me slightly well	Describes me moderately well	Describes me well	Describes me very well
I'm uncomfortable when expected to follow other's rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it boring to work on clearly structured tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to stand out from the crowd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm willing to take a certain amount of risk to achieve real success	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to make decisions quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm passionate about the work that I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to be the best at what I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q17

How well does this describe you as a person? (Skills)

	Does not describe me	Describes me slightly well	Describes me moderately well	Describes me well	Describes me very well
I'm focused on the long term	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes the ideas just bubble out of me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a reputation for being able to take on ideas and make it work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a self-confident person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even when things aren't going well, I look on the bright side	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not give up easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm sensitive to others' feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Import Questions From...

Create a New Question

## Invitation to participate in survey

In the following attachment, we have inserted our invitations to the survey, which consisted of three parts, where the first was the first invitation followed by two reminders.

### 1. First invitation

(If you are not currently a master's student, you do not need to pay attention to this email)

Dear NHH students,

As a part of our Masters's thesis, we would like to invite fellow **masters students** at NHH to participate in our survey. The questionnaire is about your considerations and thoughts on the choice of workplace. The survey will only take approximately **3-4 minutes** of your time. As our survey is about students' choice of work in Norway, we depend on multiple responses. Every answer is valuable, and we highly appreciate your help.

- The responses are **anonymous** and will only be used for research purposes. The questions are made for not being traceable to you and will be kept **confidential**.
  - Please contemplate every question. It might be some of the formulations look similar or could be misinterpreted.
- Your participation is voluntary, and you can withdraw the survey at any time (before sending).

Follow this link:

[Take the Survey!](#)

Or copy and paste the URL below into your internet browser:

[https://nhh.eu.qualtrics.com/jfe/form/SV\\_3kjr57RkK7PFkx](https://nhh.eu.qualtrics.com/jfe/form/SV_3kjr57RkK7PFkx)

We really appreciate your support and wish you a great weekend!

Kind regards,  
Kristian S. J. and William A.

Follow the link to opt-out of future emails:

[Click here to unsubscribe](#)

If the URL does not work, try this:

[https://nhh.eu.qualtrics.com/jfe/form/SV\\_3kjr57RkK7PFkx?Q\\_DL=NZU2NfszYEKOlr\\_3kjr57RkK7PFkx\\_MLRP\\_6XxYTAJ6DlseNQ9&Q\\_CHL=email](https://nhh.eu.qualtrics.com/jfe/form/SV_3kjr57RkK7PFkx?Q_DL=NZU2NfszYEKOlr_3kjr57RkK7PFkx_MLRP_6XxYTAJ6DlseNQ9&Q_CHL=email)

### 2. Reminder

(If you are not currently a masters' student or have submitted your answer earlier, you do not need to pay attention to this email)

Dear NHH students,

This is a reminder for all masters' students who received an invitation to participate in our survey Friday 30. October, and currently have not answered yet. **Thank you to everyone who has submitted their answers to help us with our thesis!**

As a part of our Masters's thesis, we would like to invite fellow **masters students** at NHH to participate in our survey. The questionnaire is about your considerations and thoughts on the choice of workplace. The survey will only take approximately **3-4 minutes** of your time. As our survey is about students' choice of work in Norway, we depend on multiple responses. Every answer is valuable, and we highly appreciate your help.

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  - Please contemplate every question. It might be some of the formulations look similar or could be misinterpreted.
- Your participation is voluntary, and you can withdraw the survey at any time (before sending).

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Or copy and paste the URL below into your internet browser:

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We really appreciate your support and wish you a good day!

Kind regards,  
Kristian S. J. and William A.

Follow the link to opt-out of future emails:

[Click here to unsubscribe](#)

If the URL does not work, try this:

[https://nhh.eu.qualtrics.com/jfe/form/SV\\_3kjr57RkK7PFkx?Q\\_DL=e58p6rvIZn5Uloe\\_3kjr57RkK7PFkx\\_MLRP\\_6XxYTAJ6DlseNQ9&Q\\_CHL=email](https://nhh.eu.qualtrics.com/jfe/form/SV_3kjr57RkK7PFkx?Q_DL=e58p6rvIZn5Uloe_3kjr57RkK7PFkx_MLRP_6XxYTAJ6DlseNQ9&Q_CHL=email)

### 3. Second reminder

(If you are not currently a masters' student or have submitted your answer earlier, you do not need to pay attention to this email)

Dear NHH students,

This is a reminder for all masters' students who received an invitation to participate in our survey Friday 30. October, and currently have not answered yet. **Thank you to everyone who has submitted their answers to help us with our thesis!**

As a part of our Masters's thesis, we would like to invite fellow **masters students** at NHH to participate in our survey. The questionnaire is about your considerations and thoughts on the choice of workplace. The survey will only take approximately **3-4 minutes** of your time. As our survey is about students' choice of work in Norway, we depend on multiple responses. Every answer is valuable, and we highly appreciate your help.

- The responses are **anonymous** and will only be used for research purposes. The questions are made for not being traceable to you and will be kept **confidential**.
- Please contemplate every question. It might be some of the formulations look similar or could be misinterpreted.

Your participation is voluntary, and you can withdraw the survey at any time (before sending).

Follow this link:

[Take the Survey!](https://nhh.eu.qualtrics.com/jfe/form/SV_3kjr57RKk7PFkx)

Or copy and paste the URL below into your internet browser:

[https://nhh.eu.qualtrics.com/jfe/form/SV\\_3kjr57RKk7PFkx](https://nhh.eu.qualtrics.com/jfe/form/SV_3kjr57RKk7PFkx)

We really appreciate your support and wish you a good weekend!

Kind regards,

Kristian S. J. and William A.

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[Click here to unsubscribe](#)

If the URL does not work, try this:

[https://nhh.eu.qualtrics.com/jfe/form/SV\\_3kjr57RKk7PFkx?Q\\_DL=t2gcL053LIH55\\_3kjr57RKk7PFkx\\_MLRP\\_6XxYTAJ6DseNQ9&Q\\_CHL=email](https://nhh.eu.qualtrics.com/jfe/form/SV_3kjr57RKk7PFkx?Q_DL=t2gcL053LIH55_3kjr57RKk7PFkx_MLRP_6XxYTAJ6DseNQ9&Q_CHL=email)

## Appendix II: EMP framework

Questions used to describe traits and skills in the formulation of the survey.

### *Dimensions Making Up the EMP*

---

#### Traits

**Independence:** The desire to work with a high degree of independence (e.g., *I'm uncomfortable when expected to follow others' rules*).

**Preference for Limited Structure:** A preference for tasks and situations with little formal structure (e.g., *I find it boring to work on clearly structured tasks*).

**Nonconformity:** A preference for acting in unique ways; an interest in being perceived as unique (e.g., *I like to stand out from the crowd*).

**Risk Acceptance:** A willingness to pursue an idea or a desired goal even when the probability of succeeding is low (e.g., *I'm willing to take a certain amount of risk to achieve real success*).

**Action Orientation:** A tendency to show initiative, make decisions quickly, and feel impatient for results (e.g., *I tend to make decisions quickly*).

**Passion:** A tendency to experience one's work as exciting and enjoyable rather than tedious and draining (e.g., *I'm passionate about the work that I do*).

**Need to Achieve:** The desire to achieve at a high level (e.g., *I want to be the best at what I do*).

#### Skills

**Future Focus:** The ability to think beyond the immediate situation and plan for the future (e.g., *I'm focused on the long term*).

**Idea Generation:** The ability to generate multiple and novel ideas and to find multiple approaches for achieving goals (e.g., *Sometimes the ideas just bubble out of me*).

**Execution:** The ability to turn ideas into actionable plans; the ability to implement ideas well (e.g., *I have a reputation for being able to take an idea and make it work*).

**Self-Confidence:** A general belief in one's ability to leverage skills and talents to achieve important goals (e.g., *I am a self-confident person*).

**Optimism:** The ability to maintain a generally positive attitude about various aspects of one's life and the world (e.g., *Even when things aren't going well, I look on the bright side*).

**Persistence:** The ability to bounce back quickly from disappointment and to remain persistent in the face of setbacks (e.g., *I do not give up easily*).

**Interpersonal Sensitivity:** A high level of sensitivity to and concern for the well-being of those with whom one works (e.g., *I'm sensitive to others' feelings*).

---

## Appendix III: Test results

Table with results of Pearson's chi-squared test for Regression 1.

Pearson's Chi-squared test:	
X-squared	19.237
Degrees of freedom	12
P-value	0.08297

Table with VIF score of the variables.

		VIF score	
Regression 1		Regression 2	Regression 3
Salary	1.018589	Male	1.033365
Options	1.046505	Engineering	1.014753
Company reputation	1.077711	Socioeconomic background	1.126677
Location	1.119168	Experience	1.018237
Flexibility	1.066012	Affiliation	1.067810
		Company size	1.028069

Correlations Among the 14 Scales Making Up the EMP (Subsample 1)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Independence	1.00													
2. Limited Structure	0.44	1.00												
3. Nonconformity	0.24	0.37	1.00											
4. Risk Acceptance	0.15	0.32	0.48	1.00										
5. Action Orientation	0.11	0.14	0.23	0.33	1.00									
6. Passion	-0.03	0.02	0.16	0.27	0.24	1.00								
7. Need to Achieve	-0.09	0.05	0.19	0.30	0.22	0.51	1.00							
8. Future Focus	-0.13	-0.09	-0.05	0.17	0.06	0.19	0.25	1.00						
9. Idea Generation	0.13	0.21	0.35	0.29	0.24	0.19	0.18	0.02	1.00					
10. Execution	0.13	0.21	0.31	0.24	0.30	0.20	0.24	0.11	0.46	1.00				
11. Self-Confidence	-0.03	0.05	0.27	0.30	0.26	0.32	0.29	0.12	0.12	0.19	1.00			
12. Optimism	-0.04	0.09	0.24	0.27	0.09	0.18	0.15	0.15	0.22	0.12	0.37	1.00		
13. Persistence	-0.02	-0.00	0.00	-0.02	-0.03	0.06	0.04	0.05	0.10	0.03	-0.00	0.05	1.00	
14. Interpersonal Sensitivity	0.06	-0.02	-0.02	-0.06	-0.14	-0.04	0.01	0.02	0.09	-0.01	-0.15	0.03	0.41	1.00

Correlations Among the 14 Scales Making Up the EMP (Subsample 2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Independence	1.00													
2. Limited Structure	0.41	1.00												
3. Nonconformity	0.17	0.29	1.00											
4. Risk Acceptance	0.07	0.30	0.41	1.00										
5. Action Orientation	0.11	0.14	0.24	0.32	1.00									
6. Passion	-0.04	0.01	0.15	0.26	0.26	1.00								
7. Need to Achieve	-0.11	0.08	0.19	0.32	0.23	0.50	1.00							
8. Future Focus	-0.11	-0.08	-0.05	0.21	0.07	0.21	0.27	1.00						
9. Idea Generation	0.10	0.18	0.31	0.23	0.25	0.17	0.16	0.07	1.00					
10. Execution	0.10	0.17	0.28	0.20	0.34	0.16	0.23	0.13	0.43	1.00				
11. Self-Confidence	0.03	0.10	0.26	0.28	0.26	0.26	0.24	0.10	0.08	0.18	1.00			
12. Optimism	-0.06	0.08	0.22	0.24	0.13	0.18	0.15	0.17	0.18	0.09	0.34	1.00		
13. Persistence	-0.04	-0.02	-0.04	-0.04	-0.05	0.05	0.05	0.04	0.10	0.00	-0.02	0.01	1.00	
14. Interpersonal Sensitivity	0.03	-0.02	-0.02	-0.08	-0.13	-0.09	-0.01	0.01	0.07	-0.06	-0.14	0.02	0.44	1.00