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TITLE:

How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?

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This Master thesis represents the end of a two-year master's program in Business Administration, with a specialization in innovation, at the University of Stavanger. Our motivation for writing about female entrepreneurship is the increased importance of entrepreneurship for Norway's economic and societal growth, and the need to provide equal opportunities for both men and women.

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# Abstract

In light of the identified gender gap when it comes to entrepreneurship in Norway, this thesis aims to investigate the role of universities in promoting more female entrepreneurs. The increased focus on entrepreneurship and the underrepresentation of female entrepreneurs thus created the basis for the following research question: *“How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?”*

The thesis is based on an exploratory research design and a qualitative research method. The primary data was collected through qualitative semi structured interviews and analyzed in accordance with the utilized theory and documents. The 12 participants that were interviewed in this research are all students at the University of Stavanger (UiS). Of the 12 participants, 50% are women and 50% are men.

The thesis finds that the entrepreneurial ecosystem at UiS needs to foster women's entrepreneurial intention (EI) in order to promote more female entrepreneurs. This research has identified three measures the entrepreneurial ecosystem at UiS can implement in order to develop female students EI. These measures are to provide and expose the students with more *female role models*, to enhance *the quality and accessibility of courses* that are offered and last but not least, to better the *marketing and information* about entrepreneurship as an occupation, as well as the entrepreneurial offers at UiS. In conclusion, female students EI can be increased by offering more practical training, providing more female entrepreneur role models and generally enhancing the marketing and information sharing about entrepreneurship at UiS. This can strengthen the female students' knowledge, competence and subjective perceptions about their own capabilities. Further, it can reduce their perceived risk and uncertainty surrounding entrepreneurship. By implementing these measures, UiS can increase the entrepreneurial intention rate among female students and as such, possibly promote more female entrepreneurs in Norway.

**Key Words:** *entrepreneurship, entrepreneurial intention, gender stereotypes, social norms, role models, entrepreneurial education, entrepreneurial activities, economic and societal development, the University of Stavanger*

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# 1. Introduction

“Entrepreneurship is at the heart of national advantage” (Porter, 1990, according to Thurik & Caree, 2010). The attention for entrepreneurship has increased rapidly over the last decade, as the process of entrepreneurship is widely understood as a trigger for competition and a drive for innovation (Huggins & Thompson, 2015). Entrepreneurship has further been widely accepted as a significant factor for economic growth, social progress and wealth (Cabrera & Mauricio, 2017). A person who pursues entrepreneurship is known as an entrepreneur, and an entrepreneur is commonly defined as a person who starts and develops their own business with the purpose of generating income from said business (Grünfeld, Hernes, Idland, Hvide, & Olsson, 2019). A common feature for entrepreneurs is the desire to create their own job. They are also known to be less risk averse than regular employees (Grünfeld et al., 2019). Alsos, Bjørkhaug, Bolsø, and Ljunggren (2015) state that entrepreneurs have the tendency to let their ideas and passion for creation and development overcome any adversity. “Entrepreneurs represent a group of people who see opportunities, where others see limitations” (Alsos et al., 2015, p. 71, own translation). Entrepreneurs are often seen as change agents, who both challenge and develop the economy and society through innovation (Tidd & Bessant, 2013). “Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for different business or service” (Drucker, 1985, according to Tidd & Bessant, 2013, p. 8). It is believed that the new innovative companies the entrepreneurs establish are the ones who will generate jobs and provide societal growth (Grünfeld, Skogstrøm, & Theie, 2015). This is linked to the understanding that new businesses lead to new business creations, which is a fundamental part of the economic growth process (Micozzi, 2017).

As in nearly all industrialized countries, there is an underrepresentation of female entrepreneurs in Norway (Markussen & Røed, 2017). The underrepresentation is seen to be linked to social norms, culture and gender stereotypes (Perez-Quintana, Hormiga, Martori, & Madariaga, 2017). As entrepreneurship is affiliated with men, the society creates implicit barriers for women to start their own businesses (Miranda, Chamorro-Mera, Rubio, & Pérez-Mayo, 2017). This in turn decreases women’s overall entrepreneurial intention, referring to the intention that drives a person to become an entrepreneur (Krueger & Brazeal, 1994). This leads to a societal ripple effect on the number of females who pursue entrepreneurship in Norway. Norway is currently in a position where it needs to go through a green shift and transition itself from oil

and gas to more sustainable businesses (Fitjar, 2020). The fact that fewer women become entrepreneurs implies that the society does not utilize its population well enough in terms of innovation, value creation and management (Kulturdepartementet, 2019). It has thus become relevant to see what the Norwegian society can do to promote more female entrepreneurs to both help tackle the global climate and pressing environmental challenges, as well as maintaining and potentially bettering the current welfare state in Norway (Grünfeld et al., 2015).

Universities and their entrepreneurial ecosystems are seen as evident promoters of entrepreneurial intention through their entrepreneurial activities (Arranz, Ubierna, Arroyabe, Perez, & Fdez. de Arroyabe, 2017; Shirokova, Tsukanova, & Morris, 2018). The ambition of starting a business is highest among the younger segment in Norway, 18 - 24 years (Grünfeld et al., 2015), and this age period represents a time where young adults pursue a higher education (SSB, 2021c). It is seen that the majority of those who enroll in higher education in Norway are women. This means that Universities can reach out and influence female students, potentially enhancing their entrepreneurial intentions (Kirkwood, Dwyer, & Gray, 2014).

## **1.1 Motivation**

There exists a lot of research on the themes “women and entrepreneurship” (Sullivan & Meek, 2012) and “universities and entrepreneurial intentions” (Arranz et al., 2017). There seems, however, to be less research on the combination of these two themes. The perceived research gap in accordance with the identified gender gap in entrepreneurship in Norway (Markussen & Røed, 2017) thus became the motivation for this thesis.

Although Norway is considered to be one of the most gender equal countries in the world, there seems to be a huge gender difference when it comes to entrepreneurship (Berglann, Moen, Røed, & Skogstrøm, 2011). Theory shows that there is underrepresentation of female entrepreneurs in almost all industrialized countries, including Norway (Markussen & Røed, 2017). It was further found the lack of knowledge and competence were the main hindrance for pursuing entrepreneurship for people in the age group 18 - 24 years in (Grünfeld et al., 2015). As this represents a time when the Norwegian population pursues higher education (SSB, 2021c), we wanted to research whether universities could potentially play a role in reducing the

perceived hindrance among specifically female students. Further, to see if the reduction of these hindrances could lead to an increased interest and intention for entrepreneurship among the female students. Moreover, observing if this could result in more female entrepreneurs in Norway. As both researchers of this thesis study at The University of Stavanger, this university became the natural choice in conducting this research.

## **1.2 Research Question**

The purpose of this thesis is to investigate the following research question: *“How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?”*. To answer this research question, this thesis will look at how UiS can enhance the entrepreneurial intention among their female students, as entrepreneurial intention is seen to be an evident factor for pursuing entrepreneurship. The thesis will therefore try to identify measures that UiS can implement in order to increase the intention, and thus potentially promote more female entrepreneurs in Norway.

## **1.3 Disposition**

This thesis will first present theories about entrepreneurial intention, entrepreneurship and gender, gender stereotypes, peers and role models and entrepreneurial education. To better answer the research question, a research context chapter will be used. This chapter will include background information about overall activity, behaviour, attitude and intention for entrepreneurship in Norway. Including the perceived hindrances of entrepreneurship. It will further present information about the city of Stavanger and the entrepreneurial ecosystem at the University of Stavanger. The research context is deemed necessary to understand the overall entrepreneurial environment in Norway, as well as why entrepreneurship has become more important for the Norwegian economy and society. In addition, it will give an illustration as to why a gender difference in entrepreneurship exists in Norway. The research context will further display the sustainable transition Norway is faced with, which will specifically affect the “oil capital” Stavanger. The University of Stavanger is therefore seen to have an evident role in this transition. The combined information from these two sections form the setting of this thesis. The methodology chapter will include an elaboration of the choice of method that has been used. It will further provide information about the data that is gathered, the participants of the

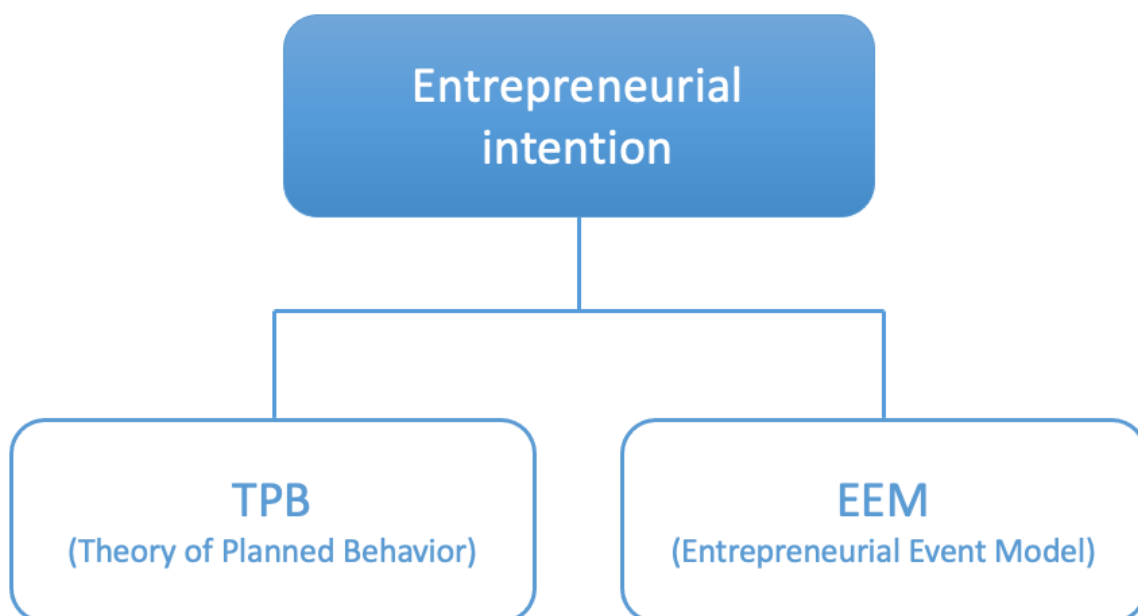


study as well as a discussion of the research quality. The following chapters will include a presentation of the findings from the collected data, and a discussion of the findings in light of the theory and context chapter. The findings are sorted into the following themes: *Entrepreneurship*, *Entrepreneurial Intention* and *The University of Stavanger*. Lastly, the conclusion in relation to the research question will be presented. The last chapter will also include limitations of the study and recommendations for future research.

## 2. Theory

### 2.1 Entrepreneurial Intentions

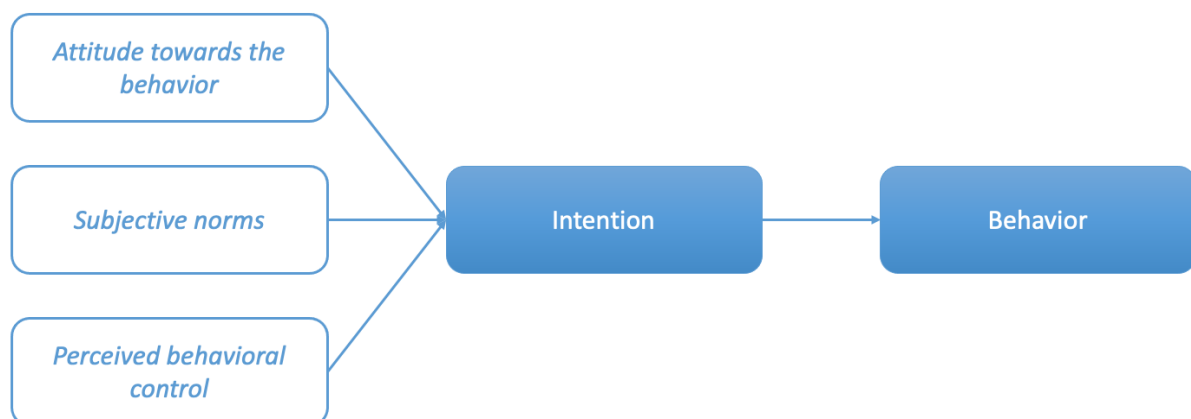
To find out what drives a person to become an entrepreneur, it is relevant to look at a person's entrepreneurial intention (EI). Intentionality is defined by Bird (1988) as “a state of mind directing a person’s attention (and therefore experience and action) toward a specific object (goal) or a path in order to achieve something (means)” (p. 442). Further, EI is an individual's commitment to start a new business (Krueger & Brazeal, 1994). In current research, there are mainly two theories of predicting entrepreneurial intention (Ahmed, Chandran, Klobas, Liñán, & Kokkalis, 2020), which creates a linkage between EI and entrepreneurial action (Zhang, Duysters, & Cloudt, 2014). The first theory, the Theory of Planned Behavior (TPB) by Ajzen (1991) has been particularly relevant in prior literature (Liñán & Fayolle, 2015). It links EI and action by looking at social psychology and includes a general analysis on behaviour which looks at the mental process from attitude to action. The second theory by Shapero and Sokols (1982), The Entrepreneurial Event Model (EEM), has a more specific focus on entrepreneurship (Liñán & Fayolle, 2015), and was specifically designed to predict EI (Davids, 2017).



**Figure 1: Theories of predicting Entrepreneurial Intention.**

### 2.1.1 Theory of Planned Behaviour

The theory of planned behavior (TPB) is a framework for understanding, predicting and dealing with human social behavior. It is divided into three independent factors which are shown to be highly accurate when predicting behavioral intention: *The attitude towards the behavior*, *Subjective norms* and *Perceived behavioral control* (Ajzen, 1991). *The attitude towards the behavior* is referred to as “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen, 1991, p. 188). I.e. the attitude towards the behavior could be to what degree an individual personally values entrepreneurship as positive or negative (Zhang et al., 2014), as to e.g. if a person is more positive to starting something of his/hers own or to being employed by someone else (Ahmed et al., 2020). *Subjective norm* can also be called perceived social pressure (Ahmed et al., 2020). It refers to the social pressure from important people in a person's life, such as family, friends and significant others (Zhang et al., 2014), but also from peers and society (Ahmed et al., 2020). The pressure is about performing or not performing the behavior (Ajzen, 1991), i.e. the social pressure on whether or not to become an entrepreneur (Ahmed et al., 2020). Lastly, *perceived behavioral control* refers to the simplicity or toughness of the performance of the behavior (Ajzen, 1991). It could be said that perceived behavioral control is if a person can take the measures needed to become an entrepreneur (Ahmed et al., 2020), or if one has the competence and ability to become self-employed (Zhang et al., 2014). The factors in the TPB model have been found to predict EI, through e.g. choice of employment status, role models and attitude towards entrepreneurship (Davids, 2017).

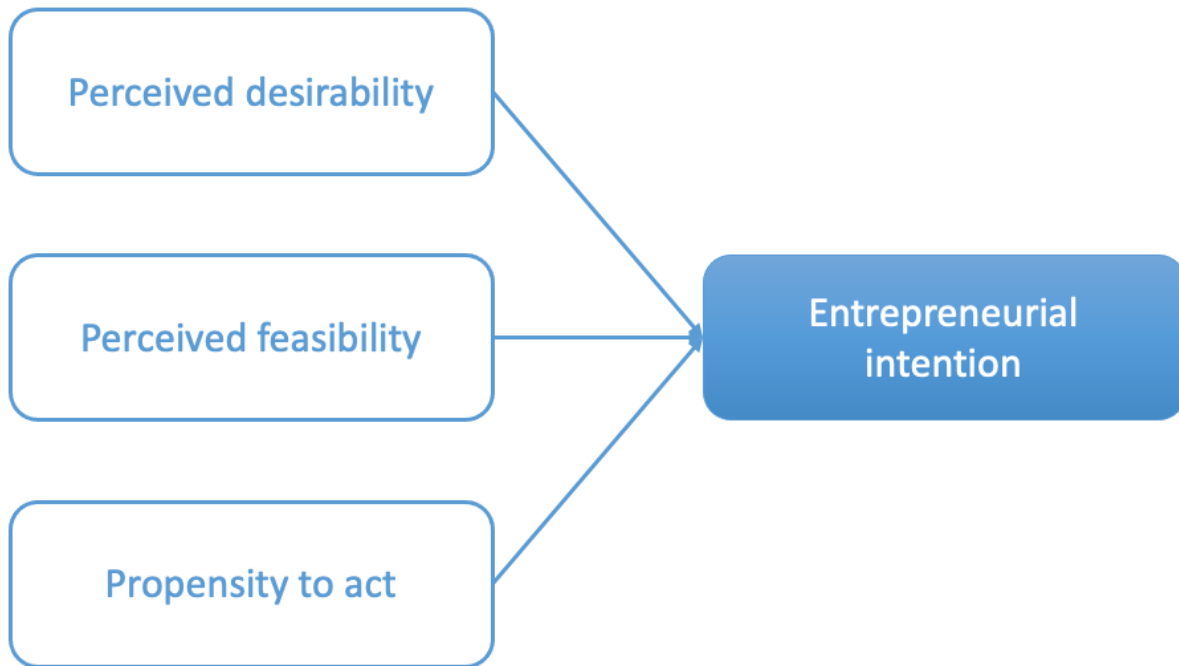


**Figure 2: Theory of planned behavior. (Inspired by Davids, 2017)**

### 2.1.2 The Entrepreneurial Event Model

“The entrepreneurial event model (EEM) proposed by Shapero and Sokol (1982) is specific to entrepreneurship and explains EI by means of perceived desirability, perceived feasibility and propensity to act” (Ahmed et al., 2020, p. 3). According to Guerrero, Rialp, and Urbano (2008) the entrepreneurial event model looks at the creation of a business as an event that is supposed to be explained by interaction between management, ability, initiative, risk and autonomy. EEM is used for determining EI, and assumes that two requirements are met before one starts a new venture. The first requirement is that a person thinks about their idea as achievable and attractive. I.e. they see their new business as credible. Further, it is expected that someone who starts a new business do it because of an event in their life, which can be neutral (e.g. graduating college), negative (e.g. a divorce or loss of job), and positive (e.g. getting inheritance or unexpected capital) (Davids, 2017). As mentioned, EEM consists of three elements, where these elements correlate with one another to predict and determine EI (Davids, 2017). According to Schlaegel and Koenig (2014) *Perceived desirability* refers to a person's degree of attraction and preferences for entrepreneurship and entrepreneurial behavior. The perceived desirability is shaped through a person's attitudes and beliefs of whether or not to start a business (Krueger, 1993, according to Davids, 2017). Further, these beliefs and attitudes can be shaped through different factors, such as entrepreneurial education and role models. These factors are found to be positively correlated with starting an own business (Davids, 2017). Davids (2017) points out that according to Shapero & Sokol (1982) people with a positive attitude towards entrepreneurship are more likely to choose this as a choice of career. *Perceived feasibility* is the second factor of determining EI. It refers to what degree a person has the confidence in themselves to start, run and own a business (Schlaegel & Koenig, 2014). I.e. it is based on whether or not an individual believes they have the skills and capabilities that are necessary to start a new venture (Krueger, 1993, according to Davids, 2017). According to Godsey and Seborá (2010) perceived feasibility has a positive effect on an individual's self-efficacy, and on their evaluation of their own ability and use of resources to start a new business. Davids (2017) explains that self-efficacy on an individual level means that a person is likely to avoid tasks they don't believe they can master. Further, Godsey and Seborá (2010) points out how an entrepreneurial education would make it possible to learn the necessary skills to start a business, in addition to an understanding of how businesses and operations work. Leading to more individuals looking at entrepreneurship as more feasible, and therefore has a strong sense of EI (Davids, 2017). *The propensity to act* refers to an individual's propensity to act on decisions, in addition to taking control and action (Schlaegel & Koenig, 2014). Shapero (1982) according to

Dauids (2017) suggests that a person without a proper level of propensity to act is not able to become an entrepreneur, as they would not be able to take enough initiative to start or create a new business. Further, it is suggested that individuals with a high locus of control are more able to have control over the events in their lives (Schlaegel & Koenig, 2014). EI has in previous research been predicted through one or all three factors of EEM, accompanied with factors such as e.g. personality traits, role models and education (Dauids, 2017).



**Figure 3: The entrepreneurial event model. (Inspired by Dauids, 2017.)**

## **2.2 Entrepreneurship and Gender**

### **2.2.1 Entrepreneurship - A Cultural Phenomenon?**

Entrepreneurship is often understood in an economic context, but Perez-Quintana et al. (2017) state that it is also a cultural issue. Creating a new business is a social behavior, “which also makes and constructs gender” (Perez-Quintana et al., 2017, p. 2). Bruni, Gherardi, and Poggio (2004) also contributes to this understanding of entrepreneurship, stating that entrepreneurship can be understood as a cultural phenomenon. They further note that “entrepreneurial action is an archetype of social action” (Bruni et al., 2004, p. 406), and because of the standardization of values and symbols in a society, it can be linked to gender. The link refers to the cultural

production of gender and entrepreneurship and its replication into social practices (Bruni et al., 2004).

In almost all industrialized countries there are fewer female than male entrepreneurs (Markussen & Røed, 2017). There is generally no accepted explanation for this gender difference, but existing research has looked at gender differences related to e.g. risk aversion, competitive attitude and self-efficacy levels (Markussen & Røed, 2017). Minniti and Nardone (2007) argue that it is the subjective perceptions of one's own capabilities, rather than objective conditions, that is linked to the attitude of pursuing entrepreneurship. They further suggest that if women feel they have the skills, abilities and knowledge needed to engage in entrepreneurship and the belief that this will make them succeed, they will be more willing to start their own business (Minniti & Nardone, 2007). However, it appears that it is not only the general attitude towards entrepreneurship that counts, but that the experience of social norms also affect the choice of establishing a new business (Alsos & Ljunggren, 2018). Berglann et al. (2011) find that some of the key determinants for becoming an entrepreneur are “occupational qualifications, family resources, *gender* and work environments” (p. 180).

### 2.2.2 Gender Stereotypes, Social Norms and Intentions

The shared social beliefs about the characteristics and attributes associated with women and men are referred to as *gender stereotypes* (Powell & Graves, 2003). Gender stereotypes refer to the traits that men and women are believed to possess, and is further linked to the belief of each sex's role at work and in society as large. These gender roles are seen as norms and refer to the activities and behavior's people considered to be appropriate for each sex (Powell & Graves, 2003). Gender stereotyping is a worldwide phenomenon and is understood as a process that allows people to sort individuals in two groups, either in the group “men» or ”women” (Gupta & Bhawe, 2007). The stereotyped characteristics of men and women are both descriptive and prescriptive, referring to how men and women *are* and how they *should be*, respectively (Heilman, Wallen, Fuchs, & Tamkins, 2004). Gupta, Turban, Wasti, and Sikdar (2009) state that the descriptive and prescriptive behavior's somewhat overlap and that they are complementary. Entrepreneurship is often associated with masculine characteristics that are strongly linked to men, such as aggressiveness, dominance, autonomy, courage, high tolerance for risk and achievement oriented (Gupta et al., 2009; Perez-Quintana et al., 2017). Women on the other hand are commonly believed to have more feminine characteristics such as

expressiveness, kindness, supportiveness, tenderness, lower tolerance for risk, affection and connectedness (Gupta et al., 2009; Perez-Quintana et al., 2017). The prescriptive gender stereotypes connect masculine traits with men, and feminine traits with women (Gupta & Bhawe, 2007).

Miranda et al. (2017) note that the difference between women and men's entrepreneurial behavior is connected to the occurrence of implicit barriers that hinders women from becoming entrepreneurs, and these hinders impact women's entrepreneurial intentions. Women have a lower rate of entrepreneurial intention, and this fact is often justified by the challenges and difficulties they face during their business creation process (Cabrera & Mauricio, 2017). Cabrera and Mauricio (2017) conclude that this may be a result of the general gender stereotypes against male and female entrepreneurs, as well as other socio-cultural factors. Gupta, Turban, Wasti, and Sikdar (2005) investigated the existence of a connection between gender-role stereotypes and entrepreneurial intentions, and whether these gender stereotypes influenced men and women's intention of starting a business. They found that the gender-role stereotypes linked to entrepreneurship were strongly biased in favor of men (Gupta et al., 2005). Perez-Quintana et al. (2017) also contributes to this finding, stating that gender stereotypes influence entrepreneurial behavior. They find that gender stereotypes are linked to the preferences and choices people make regarding their career, and that gender stereotypes have an impact on the entrepreneurial intentions of men and women (Perez-Quintana et al., 2017). The overall socially constructed ideas and gender stereotypes linked to entrepreneurship limit women's business creation process, and affect their ability to accrue "social, cultural, human and financial capital" (Gupta et al., 2009, p. 398). This further limits women's ability to generate personal savings, gain the interest of loan officers and investors, and limits their credit to attract resource providers (Gupta et al., 2009). Cabrera and Mauricio (2017) also point out that socio-cultural rules and regulations are influenced by gender-based stereotypes, and have a negative effect on women's business activities. Pursuing entrepreneurship can therefore be regarded as less attractive for women (Cabrera & Mauricio, 2017). Markussen and Røed (2017) however, suggest that the differences "will diminish over time as traditional gender roles are moderated" (p. 356).

«Gender-role stereotypes about entrepreneurs are strongly biased in favor of men. If women experience difficulty in becoming entrepreneurs because men do not perceive women to possess the characteristics that entrepreneurs are believed to have, there is a

need for policy makers and educators to seek and develop ways to reduce such stereotypes” (Gupta, Turban, Wasti & Sikdar, 2005, pp. 5-6).

### 2.2.3 Peers and Role Models

Markussen and Røed (2017) suggest that one of the reasons for the large gender gap when it comes to entrepreneurship is because “the historically inherited male dominance in this area is preserved through gendered peer influences” (p. 357). Peer influences can work in two forms. Firstly, peers can act as role models, referring to the possibility of making the entrepreneurial occupation more attractive and feasible for people when they see other entrepreneurs in their social network. Secondly, to provide learning experiences, networks, motivation and education (Markussen & Røed, 2017). Findings from Verheul, Thurik, Grilo, and van der Zwan (2012) indicate that entrepreneurship is more closely linked to the cognitive state of “wanting it” than the behavioral stage of “doing it”. Further, role models are known to play an evident role for the cognitive stage (Verheul et al., 2012), arguably more for women (Markussen & Røed, 2017). This is supported by BarNir, Watson, and Hutchins (2011), who found that the exposure of role models has a positive effect on entrepreneurial intention and entrepreneurial self-efficacy. Their research further showed that role models have a stronger effect on women than men, both when it comes to entrepreneurial self-efficacy and intention.

Bosma, Hessels, Schutjens, Praag, and Verheul (2012) find that women and men tend to look for role models who have the same sex. Berglann, Golombek, and Røed (2013) work supports this statement. They found that there is a correlation between the number of female role models and the number of female entrepreneurs. They further noted that if there are many female entrepreneurs in one municipality, this will contribute to more women pursuing entrepreneurship in that area. Markussen and Røed (2017) also contributes to this finding, stating that “men are more influenced by other men, and women are more influenced by other women” (p. 375).



## 2.3 The Role of Universities and the Entrepreneurial Ecosystem



**Figure 4: The students value of entrepreneurial education**

Krueger and Brazeal (1994) states that “Entrepreneurs are made, not born” (p. 102). They further note that universities play a vital role related to entrepreneurial intention (EI) as educators, as they can help and educate students to seize entrepreneurial opportunities (Krueger & Brazeal, 1994), by providing entrepreneurial education (Arranz et al., 2017). Entrepreneurial education (EE) is defined by Fayolle, Gailly, and Lassas-Clerc (2006) as “any pedagogical programme or process of education for entrepreneurial attitudes and skills, which involves developing certain personal qualities” (p. 702). According to Nicholls-Nixon, Valliere, Gedeon, and Wise (2020), the focus on entrepreneurship at Universities has increased in the last decades. The focus relates to fostering entrepreneurial thinking, promoting entrepreneurial actions and cooperation with external agents. To properly support students' entrepreneurial intention and interest, Arranz et al. (2017) pointed out that a combination of organized education and institutional support was beneficial. These were found in two components: *curricular* and *extracurricular* components. The curricular component is supposed to develop competences through mandatory coursework implemented in different degrees. Further, the extracurricular components include increasing awareness and entrepreneurial support that is not a part of mandatory coursework. These components are classified by Arranz et al. (2017) as: cognitive-emotional support, which has the purpose to raise awareness around entrepreneurship culture; informative-formative support, with the aim to supply both entrepreneurial competence and relevant information; and instrumental support, which is supposed to provide the necessary resources, in addition to physical help to increase entrepreneurial intention.

According to Shirokova et al. (2018) universities provide three categories of resources, which can be related to entrepreneurship activities. The first category is curricular activities related to entrepreneurship, such as lectures and seminars. The second category is extracurricular programs such as student incubators, competitions, and opportunities for coaching and networking. The last category related to entrepreneurial activities is financial support

(Shirokova et al., 2018). The literature shows that students engaging in these activities are more exposed to a secure environment related to entrepreneurship, where it is safe to fail when experimenting with new thoughts and ideas. Further, sharing of values related to entrepreneurship, interaction between students, and sharing of experiences gives a higher sense of belonging. That means that universities offering entrepreneurial activities often provide students with higher EI (Shirokova et al., 2018). A part of the extracurricular activities can be related to University business incubators (UBIs), which is supposed to back-up entrepreneurial activities (Nicholls-Nixon et al., 2020). Further Nicholls-Nixon et al. (2020) points out that universities and their UBIs are important for the entrepreneurial ecosystem. An entrepreneurial ecosystem can be defined as “the combinations of elements – such as agents, social structures, institutions, and cultural values – that encourage and support entrepreneurial activity related to starting, funding, and assisting the creation of innovative new ventures” (Nicholls-Nixon et al., 2020, p. 2). In the context of the entrepreneurial university ecosystem, it is accommodated by e.g.: the infrastructure such as incubators and research parks; university regulations; university culture including role models and attitude regarding entrepreneurship (Guerrero, Urbano, & Gajón, 2020). The university ecosystem is supposed to support students and the rest of the university community in the development of initiatives linked to entrepreneurship. In addition these ecosystems are going to regulate the quality of entrepreneurial activity at universities and have an impact on students' choice of career path (Guerrero et al., 2020).

Kirkwood et al. (2014) found that students obtained five types of instant value from EE, these being “confidence, entrepreneurship knowledge, entrepreneurship skills, a sense of reality, and practical solutions” (p. 313). Further, they found that students gained two sorts of future values from EE, these being future ideas and a bigger network (Kirkwood et al., 2014). Guerrero et al. (2020) points out that through the university ecosystem and their incubators, students and graduates are provided with important knowledge and resources. This further benefits the university students, as the number of resources benefits them when exploring ideas, and turning these ideas into real businesses. Guerrero et al. (2020) also underlines that students, who have received support and encouragement from the university ecosystem and their incubators, have a higher risk tolerance than other graduates. Additionally, it has been shown that people with previous experience with entrepreneurship are more likely to succeed when choosing self-employment, and are less likely to end up with a negative value creation (Grünfeld et al., 2015). It is also shown that training and education in entrepreneurship and entrepreneurial culture has a positive effect on the confidence to start a new venture. I.e. students who are exposed to the

entrepreneurial university ecosystem, have a positive perception of the competence and skills they need to create something of their own (Arranz et al., 2017). Ahmed et al. (2020) found that EE had several positive impacts. E.g. they found that students with some sort of EE were better at recognizing opportunities and that they had much higher EI, in addition to being more likely to start something of their own (Ahmed et al., 2020). Further, EE has a positive effect on EI as e.g. students who both engage in tasks and learn how to perform these tasks, are more likely to be more confident in their own decisions when they start their future business. They are also more likely to perform these tasks more successfully than students not taking any entrepreneurial courses at the university (Ahmed et al., 2020). Further, Ahmed et al. (2020) found that the university ecosystem, which is able to provide role models, had students with a higher likeliness for overcoming barriers and difficulties. In short, they found that entrepreneurial education could both strengthen and trigger inspiration among students to start a business of their own, and wish to become entrepreneurs. In addition to students having confidence and believing that their skills are good enough to manage a business they have created (Ahmed et al., 2020).

## 3. Research Context

This section is divided into two main parts. The first part provides background information about the overall activity, behaviour and attitude for entrepreneurship in Norway. This includes information about the population's entrepreneurial intention, the comparison to other countries, the age segments that wish to pursue entrepreneurship, the gender rate differences and general hindrances for starting a business. The purpose of the section is to get a better understanding of the overall entrepreneurial environment in Norway. It involves the comprehension of entrepreneurship's role in developing the Norwegian welfare state and the context that has created a gender difference when it comes to entrepreneurship. The second part looks more closely at the Stavanger region, and presents the entrepreneurial activities found in the entrepreneurial ecosystem associated with the University of Stavanger. This section aims to give an insight and illustration of the necessity of a sustainable transition in Stavanger and how the University of Stavanger plays a part in this transition. The combined information from these two sections form the setting for this thesis and is embedded into our study to set the appropriate context for the research question: *“How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?”*

### 3.1 Norway and Entrepreneurship - A wakeup call

Norway is known as a well-developed industrial country. The living standard in Norway is among the best in the world, and the country is also known for political stability, gender-equality, having a population with a high educational level, a well-developed infrastructure and a solid welfare system. It is also one of the richest countries in the world due to the accessibility of several energy sources such as hydropower, oil, natural gas and aquaculture (FN-sambandet, 2021; Thuesen, Thorsnæs, & Røvik, 2021). Norway is among the leading exporters of oil and natural gas in the world, and has produced oil on the Norwegian continental shelf since the early 1970's. The petroleum business has since contributed over 15 000 billion NOK to the Norwegian GDP (measured in current NOK value). If the supply industry is included, the petroleum business employs just under 170 000 people, directly and indirectly, making the petroleum business the most important business for Norway (Olje- og Energidepartementet, 2020). The extraction of oil and gas is thus very important for the Norwegian economy, as it accounts for 47% of the country's total export (numbers from 2019) (Thuesen et al., 2021).

Between 2014 and 2015 there was a global oil price plunge and as a heavily oil dependent economy, Norway suffered. The 30% decline in revenues from the oil export between 2014 and 2015 (SSB, 2017) had a huge effect on the Norwegian economy and led over 40.000 people to unemployment (Hetland, Oppedal, Jarnes, & Bø, 2017). This oil crisis gave Norway a “wake up call”, as the declining and fluctuating oil prices presented several challenges for the Norwegian economy. “It revealed our economy was not sustainable in the long run” (Boztas, 2017). The Government therefore started to search for entrepreneurs who could make the economy less dependent on the petroleum industry (Sørheim, 2015), and created measures to make Norway a more attractive entrepreneurial country (Nærings- og fiskeridepartementet, 2015). The transition to become less oil dependent is also linked to the increased focus on sustainability, the global climate and the pressing environmental challenges (Nærings- og fiskeridepartementet, 2015). The move towards a green economy is further interlinked with the United Nations sustainability goals (United Nations, n.d.). Although the green shift needs to happen globally, for the Norwegian society it means producing products and services that have significantly less negative consequences for the climate and environment than today (Klima- og miljødepartementet, 2020). This implies the need for a transition from oil and gas to new businesses and to transition existing businesses to be more sustainable (Fitjar, 2020). Entrepreneurship is therefore considered important when it comes to battling the environmental challenges, and maintaining and potentially bettering the current welfare state in Norway (Grünfeld et al., 2015).

### 3.1.1 Entrepreneurial Intentions and Attitudes towards Entrepreneurship in Norway

There is significant room for improvement when it comes to entrepreneurship in Norway. The proportion of the Norwegian population who are self-employed or entrepreneurs, is relatively low in Norway compared to other countries (Grünfeld et al., 2019). This is further linked to Norway’s relatively low entrepreneurial intention rate (GEM, 2020). As described earlier, entrepreneurial intention refers to a person's intention of starting a business (Krueger & Brazeal, 1994). There is a general understanding and attitude that “one does not need to start a business in order to survive” in Norway (Nærings- og fiskeridepartementet, 2015, p. 32, own translation), and the well-developed labor market and welfare state has potentially made it less tempting to pursue entrepreneurship (Nærings- og fiskeridepartementet, 2015). Berglann et al. (2011) find that those who are unemployed in Norway more often take the initiative to start a

business than those who are employed. This is further supported by Røed and Skogstrøm (2014), who finds that people with uncertain jobs are also more inclined to establish a business than those with secure jobs.

“Workers are reluctant to leave the relative safety of full-time employment in favor of risky entrepreneurship endeavors... Workers’ hesitation to voluntarily leave full-time employment for entrepreneurship may reflect risk aversion and lack of a social insurance safety net in entrepreneurship” (Røed & Skogstrøm, 2014, p. 22)

For an underdeveloped country, entrepreneurship can be a great opportunity in terms of self-preservation and subsistence. Especially if the country has a poorly developed labor market (Nærings- og fiskeridepartementet, 2015). However, for a more developed country such as Norway, entrepreneurship is associated with more risk, because one eliminates the overall safety that full-time employment offers. Nevertheless, Norway requires more entrepreneurs to develop and transition its society to a more sustainable direction. The country needs people who can create businesses which have the potential to grow, expand and which can generate new jobs (Grünfeld et al., 2019). Entrepreneurs are thus believed evident for innovation, a green transition and growth (Nærings- og fiskeridepartementet, 2015).

The latest data from the Global Entrepreneurship Monitor (GEM), a global research source that maps the annual scope and relation countries have to entrepreneurship (Alsos & Ljunggren, 2018), shows that the rate of entrepreneurial intention in Norway is relatively low compared to the global average. The numbers from 2019 are based on the percentage of the population between the ages of 18-64 “(individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and who intend to start a business within three years” (GEM, 2020). As seen in the (Table 1) below, the rate for Norway was 4.78% in 2015 and 5.74% in 2019. Although the intention rate has increased within these years, it is far from the global average rate of 23.72% in 2019.

Economy	Indicator
Norway 2015	4.78%
Norway 2019	5.74%
Global average	23,72%

**Table 1: Entrepreneurial Intention Rate (Inspired by GEM, 2020)**

The Norwegian population has an overall positive attitude towards entrepreneurship (Alsos & Ljunggren, 2018). Although people see the business opportunities connected with entrepreneurship, they have little intention of starting for themselves. A large portion of the business establishments in Norway are created by people who already are self-employed. This implies that a relatively small amount of the population is responsible for a relatively large share of the entrepreneurial activities in Norway (Alsos & Ljunggren, 2018).

### 3.1.2 Equal Opportunities?

Norway is considered to be one of the most gender equal countries in the world and women's participation in the labor market is higher in Norway compared to many other countries (Kulturdepartementet, 2019). Women make up 48% of the active labor market in Norway (Markussen & Røed, 2017). However, when it comes to entrepreneurship the numbers tell a different story. Although the country has a reputation of providing equal opportunities for women and men, there seems to be a huge gender difference when it comes to entrepreneurship (Berglann et al., 2011). The differences between female and male entrepreneurs are the same/or bigger in Norway compared to other countries which are considered to be less gender equal (Grünfeld et al., 2019). The latest female/male TEA ratio (“the percentage of female 18-64 population who are either a nascent entrepreneur or owner-manager of a new business, divided by the equivalent percentage for their male counterparts”) from GEM for Norway, was 0.51 in 2015, and 0.44 in 2019 (table 2) (GEM, 2020). This means that for every male entrepreneur in Norway in 2019, there were 0.44 female entrepreneurs. The global average female/male TEA ratio was 0.71 in 2019. These numbers imply that there are few female entrepreneurs in Norway, and a big leap to the global ratio. Further, the number of female entrepreneurs per male entrepreneur has decreased between 2015-2019 in Norway. This can however potentially be linked to the overall increase of entrepreneurial intention in Norway as seen in the previous section. The fact that fewer women become entrepreneurs implies that the society does not

utilize its population well enough in terms of innovation, value creation and management (Kulturdepartementet, 2019).

Economy	Indicator
Norway 2015	0.51
Norway 2019	0.44
Global average	0.71

**Table 2: Female/Male TEA Ratio (inspired by GEM, 2020)**

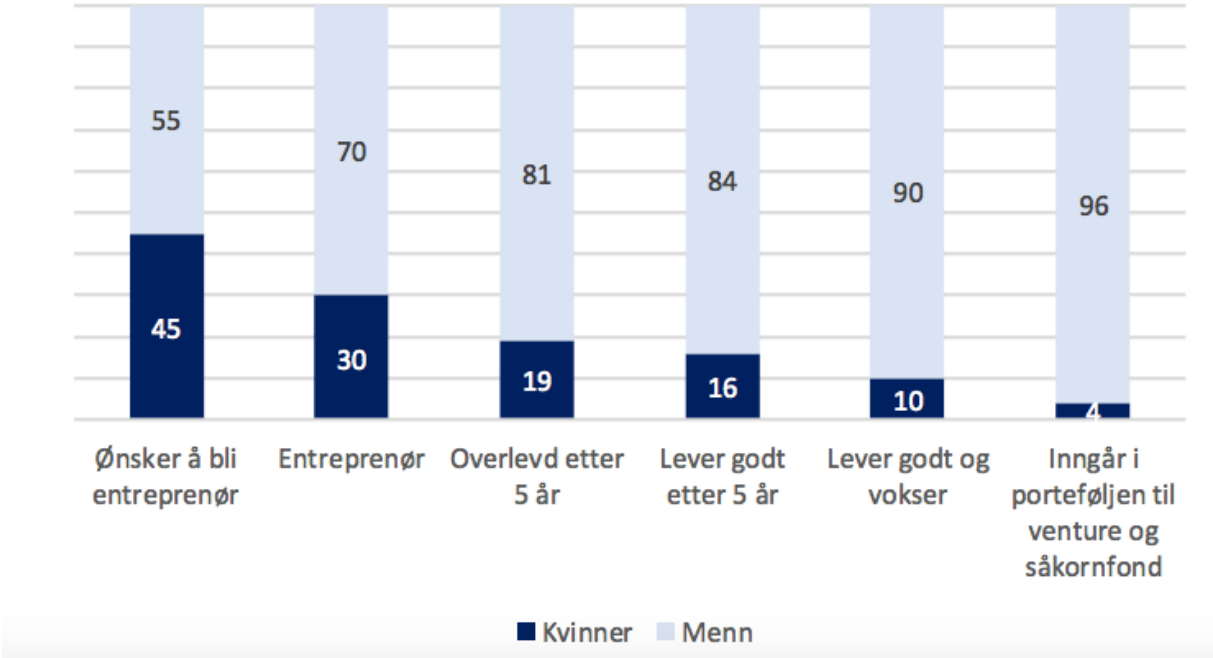
Alsos and Ljunggren (2018) points out that the gender pattern when it comes to entrepreneurship has “historical roots”. The authors acknowledge that the pattern is connected to how gender, capital and businesses are understood in the Norwegian culture. There is still a significant gender difference when it comes to entrepreneurship, as there are far more men than women who both own and run their own business in Norway (Markussen & Røed, 2017). There are also more men than women involved in business start-ups and women are less inclined to take over family-owned businesses (Alsos & Ljunggren, 2018). The gender differences are often explained by the gender segregated education and labor market, where the industries and education women choose to pursue have less connection to entrepreneurship. This is considered to be an inhibiting factor (Berglann et al., 2013). Women also have fewer role models than men in Norway, and the underrepresentation of female entrepreneurs in Norway today may be partly due to the underrepresentation in the past.

### 3.1.3 Female Entrepreneurial Participation in Norway

To better illustrate the difference between female and male entrepreneurs in Norway, a survey by Menon Business Economics from 2015 is utilized (Grünfeld et al., 2015). The survey was created to find the number of people in Norway who had the desire to pursue entrepreneurship. It represented the nation as a whole, and was weighted according to official statistics regarding gender, age and geography. 848 people between the ages 18-67 participated in the survey. Findings from the survey showed that 13% of the 848 people had the desire to start their own business. This amounts to approximately 500 000 people in working age in Norway (Grünfeld et al., 2015). The findings are shown below in figure 5, where the percentage of women who establish companies with high growth and high value creation in Norway are presented in the



dark blue columns. The percentage of men are displayed in the light blue columns. From the 500 000 people who stated they wanted to pursue entrepreneurship, 55% were men and 45% were women, as seen in the first column. However, when it comes to actually starting a business, when both personal owned companies and limited companies are taken into account, the total number of female entrepreneurs in Norway is 30%, as displayed in column two. This means that 70% of all entrepreneurs in Norway are men. Indicating that men dominate the arenas where “new ideas are born”. As seen in the last four columns, the number of female entrepreneurs continues to decrease. Only 19% of the businesses that survive the first five years belong to female entrepreneurs. The numbers then decrease, and female entrepreneurs make up only 16% of businesses that are in good condition after five years. The numbers further decrease to 10% for businesses that are in good condition and keep on growing, and only 4% of female entrepreneurs are included in portfolios of venture funds and seed funds. These numbers indicate that something happens or hinders women more than men in pursuing entrepreneurship in Norway (Grünfeld et al., 2019).



**Figure 5: The proportion of female entrepreneurs in Norway.** From “Kvinnelig entreprenørskap i Norge: Utviklingstrekk, hindre og muligheter”, by Grünfeld et al. (2019).

### 3.1.4 Age, Education and Hindrances

When it comes to pursuing entrepreneurship in Norway, the ambition is highest amongst the younger segments. The Menon Business Economics report from 2015 that was mentioned in the previous section, showed that 25% of the Participants in the age group 18-24 said they wanted to become an entrepreneur. Whereas only 13% in the age group 35-44 wanted to start their own business. However, the majority of startups in Norway are created by people within the last age-group (Grünfeld et al., 2015). More recent numbers from Statistics Norway also show that the majority of start-ups, both for sole proprietorship and for private and public limited companies, are established by people in the age group 25-44 (appendix 3) (SSB, 2021a). As seen in appendix 2 and appendix 3 (SSB, 2021a), there is a huge difference in the number of establishments between the youngest age segment, 16-24, and the 25-44 age segment. There is also a difference in age between men and women when it comes to establishing a business. Alsos et al. (2015) find that on average, women are older than men when they start their own businesses. The authors further write that one of the main factors why women chose to pursue entrepreneurship, is their understanding of their own qualifications and resources. Feeling mature to start a business and having enough experience to rely on is seen as important factors in the establishment phase (Alsos et al., 2015).

The uncertainty around income is considered to be the biggest hindrance for establishing a business in Norway. The aforementioned survey showed that 39% of the participants mentioned “the income factor” as a hindrance for establishing a business (Grünfeld et al., 2015). Pursuing entrepreneurship is often associated with giving up a secure income from an already established business and choosing a more uncertain income path as one is not guaranteed that the startup will be successful. Not having a secure income is seen to be a bigger hindrance for those over 35 years (Grünfeld et al., 2015). Starting a new business and actually succeeding requires knowledge and skills. The lack of competence and knowledge of how to start a business is thus seen as the second biggest hindrance (Grünfeld et al., 2015; Nærings- og fiskeridepartementet, 2015). The knowledge hindrance is particularly mentioned by the younger segment.  $\frac{3}{4}$  of people in the age 18-24 state that the lack of competence and knowledge of starting and running a business is one of the main hindrances when pursuing entrepreneurship (Grünfeld et al., 2015). This age group represents a time when a majority of the Norwegian population pursues higher education. In 2020, 37,8% of all the people who took a higher education were in the age between 19-24. Of these 29,9% were men and 46,4% were women (Table 3) (SSB, 2021c). The numbers show that more women pursue a higher education in Norway, and that the overall number of

students, both women and men, who are taking a higher education has increased within the last decade.

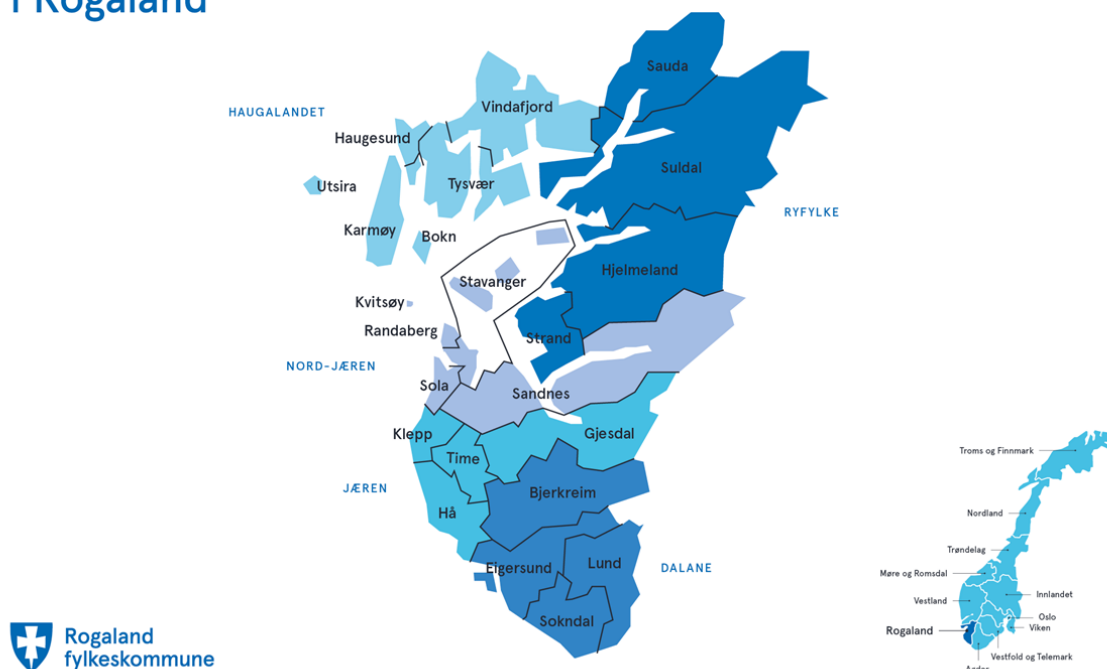
<b>Students in higher education in Norway and abroad</b>				
	2010	2019	2020	
<i>Students in higher education</i>				
Total	241 302	296 182	306 367	
Males	95 974	119 186	122 485	
Females	145 328	176 996	183 882	
<i>Proportion 19-24 years in higher education</i>				
Total	31,2	35,8	37,8	%
Males	25,2	28,5	29,9	%
Females	37,6	43,5	46,4	%
<i>Proportion 25-29 years in higher education</i>				
Total	14,9	15,9	16,7	%
Males	13,1	13,9	14,6	%
Females	16,8	17,9	18,9	%

**Table 3: Students in higher education in Norway and abroad (Inspired by GEM, 2020)**

### **3.2 Stavanger, the New “Renewable Capital” of Norway?**

Stavanger is the fourth largest city in Norway and the regional center of the county of Rogaland. It houses 144 147 people (SSB, 2021b) and is located in the Southwest coast of Norway. Stavanger is often referred to as the oil-city or the oil capital of Norway (NTB, 2015). The oil and gas sector in Norway has had its main operations in Stavanger since the 1960s. The petroleum industry has since then led to several establishments of companies within oil exploration and extraction and created beneficial ripple effects for the overall business community in Stavanger. The growth impulses led by the industry made Stavanger the city it is today (Thorsnæs, 2021).

## Kommuner og regioner i Rogaland



**Figure 6: “Kommuner og regioner i Rogaland” by Rogaland Fylkeskommune (n.d.)**

One out of eight jobs in Norway is connected to the oil industry. In Rogaland, four out of ten jobs are oil-related (Refvem, 2015). The region has an oil-dependent economy and labor market and is thus especially vulnerable to the decreased demand of oil and gas (Fitjar, 2020). When the oil crisis hit in 2014/2015, Rogaland county and Stavanger were hit particularly hard. Over 20.000 people who were directly employed in the petroleum industry lost their jobs between 2014 -2016 , and  $\frac{1}{3}$  of these lived in Rogaland (Jacobsen, 2017). The city of Stavanger also lost between 250-300 million NOK in taxes due to the oil crisis, and the loss of tax revenues led to a much tougher economy for the oil capital (Akhtar & Nordmark, 2016).

The global and national focus of becoming more sustainable implies that the Stavanger region needs to develop new businesses and reshape existing businesses to have something to rely on and to live off in the future (Fitjar, 2020). In the pursuit of a green transition, being labeled “the oil city” is no longer favorable. Stavanger municipality is therefore working to promote Stavanger as “the innovative business region of Norway”, or re-brand from oil to “the energy capital” of Norway (Stavanger Kommune, n.d.). To align with the focus on sustainability and

the re-branding of the city, Stavanger plans to build on the competence and traditions from the oil and gas industry. The public, private and academic institutions in Stavanger are therefore working together to use this knowledge and competence “to develop sustainable energy solutions, e.g. offshore wind and hydro power”. The City of Stavanger further states that they “support initiatives that can create sustainable and highly productive jobs” (Stavanger Kommune, n.d.).

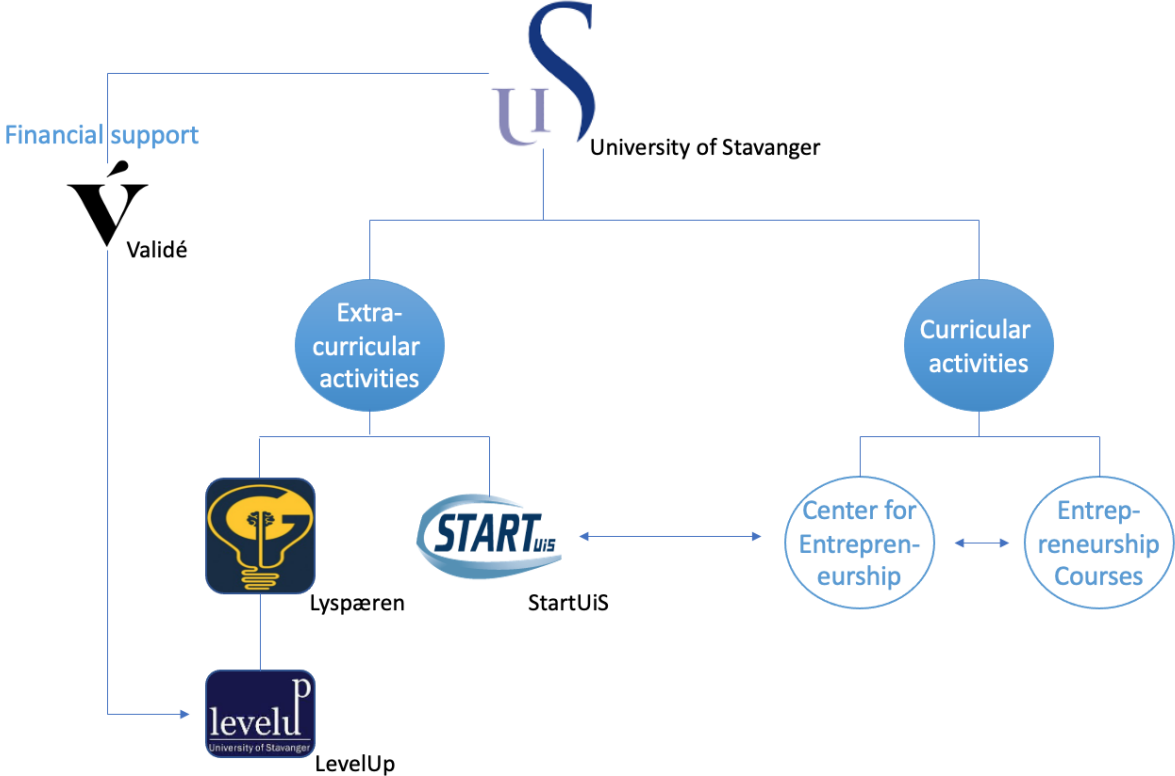
### **3.3 The Role of Universities - The University of Stavanger**

The government aims for a bigger return from society's research efforts and there is a call for strengthening the entrepreneurial culture at research institutions (Nærings- og fiskeridepartementet, 2015). The education system is evident for developing entrepreneurs' talents and competence as well as promoting skills and creating a culture for entrepreneurship. Further, it is meant to support and drive students' generation of ideas and supply the tools needed to succeed with entrepreneurship in the future (Nærings- og fiskeridepartementet, 2015).

The University of Stavanger is in an ongoing process of implementing their *Strategy 2030*, a strategy for “a region in transition” (Fitjar, 2020). There is a need for a transition from oil and gas to new businesses, and the University can play a vital role in contributing to regional development and innovation. “We want to contribute and help solve the major societal challenges, both globally and regionally. The human-made climate changes require immediate action and measure, also here in the Stavanger region and at The University of Stavanger” (Fitjar, 2020, own translation). Green restructuring will thus be the main focus area of the new strategy. On this basis, the educational offer of subjects linked to innovation, entrepreneurship and sustainability will be prominent going forward (UiS, 2020a). The new strategy is therefore built to prioritize “student-active and innovative learning, high-quality teaching and activities relating to innovation and entrepreneurship” (UiS, 2021b).

Universities can help promote and increase entrepreneurial intentions and education through their entrepreneurial ecosystem (Shirokova et al., 2018). As mentioned earlier, an entrepreneurial university ecosystem is meant to develop initiatives linked to entrepreneurship and regulate the quality of entrepreneurial activities (Guerrero et al., 2020). Universities provide

three categories of resources for entrepreneurial activities: curricular activities, extracurricular activities and financial support (Shirokova et al., 2018). For UiS, the entrepreneurial ecosystem is illustrated in figure 7.



**Figure 7: The Entrepreneurial Ecosystem at UiS**

**3.3.1 The Center for Entrepreneurship & Entrepreneurship Courses**

The Center for Entrepreneurship works to better the educational offer and interest for innovation at the University of Stavanger. It also works to stimulate innovation and collaboration between the educational, research and business sections in the region. For the educational level at the University of Stavanger, some of the relevant topics and subjects are entrepreneurship and business plans, social entrepreneurship, intrapreneurship and different types of innovation (UiS, 2020b). The Center for Entrepreneurship is connected to the University of Stavanger’s Business School and collaborates with the Center for Innovation Research. The center also disposes a house which is utilized by the student organization for innovation and entrepreneurship, Start UiS.

In 2020, a working group was created to look into measures which can strengthen the teaching within the areas of innovation, entrepreneurship and sustainability at the university. Findings

from their work show that there already exist courses in areas such as innovation, sustainability and entrepreneurship. However, some of these courses are not open for students across institutes and faculties, or the students need to meet specific requirements to pursue the courses (Arbeidsgruppa, 2020). Most of the courses offered by each faculty are closed or only accessible for the students who belong to that specific faculty (Arbeidsgruppa, 2020).

### 3.3.2 Lyspæren

Lyspæren is the University of Stavanger's (UiS) new house and arena for innovation, entrepreneurship and sustainability. Lyspæren is an arena for both students and employees at UiS as well as external actors. The purpose of the building is to facilitate and stimulate creativity, innovation, entrepreneurship and sustainability (UiS, 2021a). It is also meant to offer a space for students to both work with and test their innovation/entrepreneurship-projects or ideas. Lyspæren will house the university's student incubator LevelUp, and will offer various courses, workshops, hackathons and other events. Lyspæren is a contribution to the regional innovative ecosystem in Stavanger (UiS, 2021a).

### 3.3.3 LevelUp

LevelUp is Validé's student incubator at the University of Stavanger. Its goal is to make entrepreneurship a feasible career opportunity for students at UiS (UiS, 2020b). The only precondition to be involved in LevelUp is to share and be willing to help other members with their projects within the incubator (UiS, 2020b).

### 3.3.4 StartUiS

Start UiS is a student organization that works with promoting the interest in innovation and entrepreneurship among the students at the University of Stavanger (StartUiS, n.d.). All the activities at Start UiS are driven by voluntary work by students at the University of Stavanger. StartUiS works towards increasing the curiosity and excitement for innovation and business development, and it helps students take their first steps in starting their own businesses (UiS, 2020b).

### 3.3.5 Validé

Validé is a “non-profit innovation company” that works to make the world a better place by helping push products and solutions forward based on research and science, new ideas and

business concepts (Validé, n.d.-a). The company supports entrepreneurs with their idea development, innovation and commercialization process and assists them with issues related to patenting, investing, establishing a business, licensing and financing. Validé also helps with information regarding incubators (University of Stavanger, d, 2020). Validé is the official technology transfer office (TTO) to seven research institutes, such as the University of Stavanger and is part of the innovative ecosystem in Rogaland. The company offers guidance to startups, accelerator programs (ITSA), office spaces and financing through various investment schemes (Validé, n.d.-b).



## **4. Method, Data and Empirical Research**

The purpose of this chapter is to explain the choice of research philosophy, research design and methodology for this Master thesis. It will explain the overall background for the choices and decisions made throughout the thesis and includes an assessment of the ethical issues, validity and reliability of the research.

### **4.1 Research Philosophy**

To understand the philosophical prerequisite for this research it is relevant to understand the research philosophy and our assumptions. “The term research philosophy refers to a system of beliefs and assumptions about the development of knowledge” (Saunders, Lewis, & Thornhill, 2019). Saunders et al. (2019) points out that throughout every step of a research we are making consciously and unconsciously assumptions that can be e.g., ontological or epistemological. Ontology can be referred to as “what one believes about the nature of reality” (Merriam & Tisdell, 2015, p. 8). I.e., ontology is assumptions you can have about the reality encountered through your research, and what you choose to look at in your research project (Saunders et al., 2019). Epistemology is the assumption of human knowledge (Saunders et al., 2019). It can be explained as “... instead of outright accepting or rejecting knowledge, we seek explanation to be sure what a particular piece of knowledge consists of and how it has been acquired” (Ghuri, Grønhaug, & Strange, 2020, p. 10).

There are mainly five research orientations: positivism, critical realism, interpretivism, postmodernism and pragmatism (Ghuri et al., 2020). The most used orientation in qualitative research is interpretivism (Merriam & Tisdell, 2015), with small samples and in-depth investigations, where a range of additional data can be interpreted (Saunders et al., 2019). According to Saunders et al. (2019) the purpose of interpretivist research is “to create new, richer understandings and interpretations of social worlds and contexts” (p. 149). We have decided to use qualitative methods with interviews in our thesis, leading to interpretivism being the natural choice of orientation. That is because our thesis and research question are based on creating a new and better understanding of how the university can be better at creating entrepreneurial intention (EI). In addition, we want to understand the context and the meaning of universities' impact on students EI and female entrepreneurship. Considering our orientation

being interpretivism, epistemology is the best fit of assumptions for our thesis, with a focus on perceptions and interpretations leading to new understandings (Saunders et al., 2019). Our research is somewhat practical, seeking to understand coherence and to understand the world in terms of how the entrepreneurial ecosystem at the university plays a role in increasing EI among female students. Therefore, as epistemology as mentioned seeks explanation and interpretivism has the purpose of creating a richer understanding, it seems like the best fit for our thesis.

## 4.2 Research Design

The research design is “the overall plan for relating the conceptual research problem to relevant and practicable empirical research” (Ghauri et al., 2020), meaning that it is a general plan on how we are going to answer our research question (Saunders et al., 2019). The research design aims to help the researcher produce information in an effective way within constraints such as time, access to data, budget and skills (Ghauri et al., 2020; Saunders et al., 2019). Further Ghauri et al. (2020) explains that there are mainly three types of research designs: exploratory, descriptive or causal.

1. *Exploratory design*: According to Saunders et al. (2019) exploratory design is used to ask open questions and will be useful to gain insight about a topic of interest. In addition, they point out that it is the design used when trying to understand a phenomenon, problem or issue that may be unclear or not precise. Exploratory research can be conducted through in-depth interviews which are likely to be unstructured or semi-structured. Additionally, the researcher has to be open for change as new insights might occur throughout the research process (Saunders et al., 2019).
2. *Descriptive design*: According to Saunders et al. (2019) this design has the purpose to “gain an accurate profile of events, persons or situations” (p. 187). The problem that is researched is structured and well understood (Ghauri et al., 2020). With a descriptive design it is important to have a clear understanding of the phenomenon to be researched before collecting the data (Saunders et al. 2019).
3. *Causal design*: This design is often confronted with ‘cause-and-effect’ problems. That means that the main task of the research is to look at the effect of a cause and is usually used in quantitative research to test a theory (Ghauri et al., 2020).

The purpose of our thesis is to explore and gain insight into how the entrepreneurial ecosystem at the University of Stavanger can promote more female entrepreneurs in Norway. It will be beneficial for us to use an exploratory design as we want to gain more insight and explore the theme and phenomenon. As of today, there exists research on how universities can increase EI and on why there are few female entrepreneurs in Norway. However there is not a lot of research on the combination of these themes. Since the issue we are researching is somewhat unclear, an exploratory design will be most advantageous.

## 4.3 Methodology

All research has one thing in common, they aim to study or investigate something in a systematic way (Merriam & Tisdell, 2015). When choosing methodology, it is important to clarify what you want answered and how you want to collect the information you are going to use in your research. The choice is usually between qualitative and quantitative methods, or a combination of these. Qualitative research methods are often described as a collection of non-numeric data such as interviews, while quantitative methods can be described as collection of numeric data such as questionnaires (Saunders et al., 2019). Further, “qualitative research is based on the belief that knowledge is constructed by people in an ongoing fashion as they engage in and make meaning of an activity, experience, or phenomenon” (Merriam & Tisdell, 2015, p. 23). Additionally, Merriam & Tisdell (2015) points out that quantitative research in contrast to qualitative research is based on a belief that the knowledge already exists and is just waiting to be discovered. When a research is dependent on primary data, the choice on what collection method to use has to be made. Therefore, the choice of methods should be based on the research problem and its purpose (Ghauri et al., 2020).

### 4.3.1 Choice of Method: Qualitative Research Method

In a qualitative method the number of observations is low with e.g., 6-15 observations, compared to a quantitative method survey with e.g. 100-150 observations (Saunders et al., 2019). We chose a qualitative method, because we wanted to obtain in-depth insight into the thoughts and meanings of the participants in the study (Ghauri et al., 2020). Ghauri et al., (2020) points out that a good example of qualitative research is “research problems focusing on uncovering a person's experience or behavior, or when we want to understand a phenomenon

about which little is known” (p. 98). We have selected qualitative methods as we wish to go in depth and increase the understanding of how universities possibly can increase the number of female entrepreneurs. Further, Silverman (2021) emphasizes that qualitative research is used when we want to find out about other people's experiences and in helping us to understand what really is important to people. The purpose of the thesis is to investigate how the entrepreneurial ecosystem at the University of Stavanger (UiS) can help or contribute to increasing female student's entrepreneurial intention, in order to increase the number of female entrepreneurs in Norway. In doing so, we have interviewed 12 students at UiS and asked them about their experiences with UiS's entrepreneurial environment, including their offers of curricular and extracurricular activities. Further, we have asked what they believe is needed to increase the entrepreneurial quality at the university. As Ghauri et al., (2020) explains, “qualitative research tends to be more explorative and unstructured, with emphasis on understanding ...” (p. 130). By having a more unstructured and explorative research, we do not put a lot of constraints or guidelines for the information we are gathering. That means that the participants in our research will take part in or decide what information will be relevant for our study (Saunders et al., 2019). Interviews are the desired research choice as it allows us to see if female and male students have different views on what the university can do better to promote entrepreneurial intention and if they need different adjustments and offers (Merriam & Tisdell, 2015). Further, those who take part in our research are not called respondents, but participants. This is because when developing a theoretical contribution and a conceptual framework, the participants' opinions are studied and included in qualitative research (Saunders et al., 2019). Qualitative methods emphasis on understanding (Ghauri et al., 2020). Our goal with this thesis and research is to understand coherences and how the world works (Merriam & Tisdell, 2015). Additionally, the qualitative method has shown to be realistic in terms of economics and time (Saunders et al., 2019), which has been important for us as the budget and time frame has been limited.

One of the major challenges with a qualitative approach is that it is difficult to generalize the findings. As humans we interpret information differently (Merriam & Tisdell, 2015), meaning that our interpretation can differ from others. Another challenge is that it can be challenging to analyze such complex data as qualitative data provides (Ghauri et al., 2020). Even though it can be difficult to analyze the data, we still think that this approach has been the best choice for our thesis. Evidently because we want to analyze meaningful and personal data, instead of quantifying it (Ghauri et al., 2020).

## 4.4 Data Collection: Qualitative data

This thesis draws on primary qualitative data and existing literature and documents. “The qualitative research interview attempts to understand the world from the subjects’ point of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanation” (Brinkmann & Kvale, 2009, p. 1). The primary data is collected through semi-structured interviews. The goal with the interviews is to get an insight and understanding of the phenomenon to be able to answer the research question. The documents that are utilized in this thesis are related to the context chapter. According to Merriam & Tisdell (2015), documents is a general term for relevant material. The documents can be written, digital, physical and visual. The documents used are public and accessible to everyone. The utilized documents are e.g., official governmental records, statistics and research issued by Statistics Norway (SSB), and news articles. The information in this chapter is used to provide an understanding of the entrepreneurial environment in Norway, including the activities, behavior, attitude and intention for entrepreneurship. It also shows the gender rate differences and the anticipated hinders for starting a business. Further, as the purpose of the thesis is to examine what the entrepreneurial ecosystem at the University of Stavanger can do to promote female entrepreneurs, information about the city of Stavanger is provided. This is to understand why entrepreneurship is relevant for this region in particular, and how The University of Stavanger can play a role in the city's sustainable transition by offering and focusing entrepreneurial activities.

### 4.4.1 Semi-structured Interviews

When conducting data through interviews the choice of structure usually differentiates between three typologies: structured-, unstructured- and semi-structured interviews (Saunders et al. 2019). A structured interview has a standardized format of the interview (Ghauri et al., 2020), i.e., an oral form of survey (Saunders et al., 2019). In comparison, in unstructured interviews participants are given the freedom to talk about their opinions, reactions and behavior on a topic or an issue (Ghauri et al., 2020). Both unstructured- and semi-structured interviews are often referred to as qualitative research interviews (Saunders et al., 2019). Semi-structured interviews differ from structured and unstructured interviews as the topics and issues to be covered, as well as the questions, who and how many to interview are determined before conducting the interviews (Ghauri et al., 2020). In semi-structured interviews you usually start by making a list of the themes you want the participant to talk about. It is also possible to write down some

key questions related to the themes to help guide each interview. By using a little bit of structure in the interviews and making sure to explore the same themes with all participants, it allows you to compare their responses to the questions related to the themes (Saunders et al. 2019). Even though semi-structured interviews have some guidelines in the sense of themes and key questions, they are still relatively open for the participant to express their opinion and experiences. This is to avoid putting constraints on the participants and biased opinions from the interviewer (Ghauri et al., 2020). The themes are based on existing theory, and the intention is to test the theory in the context of our own research (Saunders et al., 2019), in addition to possibly discovering new ways the University of Stavanger can help increase entrepreneurial intentions among their students. Especially female students.

#### 4.4.2 Interview Guide and Choice of Participants

The interview guide is a list of questions or themes to help structure the interviews (Merriam & Tisdell, 2015). By preparing themes and key questions every participant is talking about their thoughts and experiences around the same issues, which helps us in the process of analyzing the data collected. During the creation of the interview guide you can choose to what degree the guide is to be structured. It could be highly structured with a set list of questions, unstructured where only a few themes are written down in no particular order, or semi-structured which is something in between (Merriam & Tisdell, 2015). Our choice of structure for the interview guide is semi-structured. We wanted to have relatively open questions, in order for the participants to answer more freely about what came to mind. We chose to organize our interview guide to somewhat fit the structure of our theory chapter for the analysis part to go more smoothly. Additionally, we linked the questions to the existing theory through our notes in the interview guide. Therefore, the participants' answers to each question will also link to the existing theory as shown in appendix 4. Having a semi-structured interview guide could possibly put some constraints on the openness of the interviews and to some extent limit the participants' answers. However, with the open questions, follow-up questions and the conversation with the participants we are quite confident that the participants were able to express all their opinions and thoughts around every question, and answer everything in their own words (Saunders et al., 2019). We also chose to carry out the interviews in Norwegian, because this is the participants native language. We wanted them to answer in their own language to express themselves more easily and feel more open and confident to verbally express themselves. Additionally, we chose not to dispatch the guide to the participants in advance, because we wanted authentic and spontaneous answers. However, we wanted to make

sure that all participants knew about the theme and essence of our thesis. We sent out a form (appendix 5) with information about the thesis and how we were making sure the terms of privacy were intact, which will be more explained in the subchapter *ethics*.

When collecting data through interviews, one of the first things to be done is figuring out whom to interview. That choice should be based on what we want to know and from whose perspective (Merriam & Tisdell, 2015). This thesis will research what the ecosystem at the University of Stavanger (UiS) may do to increase entrepreneurial intention, especially among female students. It was therefore relevant to interview students who are enrolled and exposed to this ecosystem, to gain their insight and opinion on this matter. We chose to interview both male and female students because we want to see if they have different experiences and needs. We interviewed students that are involved in the entrepreneurial environment at the university in order to get an insight into how and why they got involved in the environment, in addition to what benefits they have gotten from that environment. Further, we wanted to figure out what our participants think about the curricular and extracurricular activities at the university and how they think these can be improved. We also talked to students who are not a part of the environment but who are generally interested in entrepreneurship. We want to understand why they have not taken part in the environment and what could be done for them to involve themselves more. The underlying criteria for our choice of participants is that they have some sort of interest in entrepreneurial activities and that they are students at the University of Stavanger. We knew that the participants had an interest, because we are acquainted with several of the participants. The participants partaking in the interviews are between the ages of 20-29. We also reached out to other students we knew were a part of the environment and asked if they wanted to take part in interviews. These participants were found through the websites of the organizations associated with the entrepreneurial ecosystem at UiS. Further, we used the university's social media channels to see if we could reach students outside of the entrepreneurial environment. We primarily used Facebook groups that students are a part of to ask if someone with an interest in entrepreneurship would volunteer to be interviewed. We ended up with 12 participants, 6 female and 6 male students, where approximately half of the participants were already actively partaking in the entrepreneurial environment (3 male and 3 female) and the rest were not (3 male and 3 female). The participants are enrolled in the following studies: Master's in business administration, bachelor's in business administration, Master in Change Management, Master in Energy Environment & Society, Bachelor in Automation and Electronics design and bachelor's in Data Engineering. The differences in age,

gender, entrepreneurial activities and field of study are pursued on purpose, to see if the students have different experiences and needs when it comes to entrepreneurial activities at UiS. The participants are seen in (table 4) below:

Participants	Gender	Age
Pa)	Male	25
Pb)	Female	25
Pc)	Female	20
Pd)	Female	23
Pe)	Male	28
Pf)	Male	29
Pg)	Male	28
Ph)	Female	24
Pi)	Male	27
Pj)	Female	23
Pk)	Male	22
Pl)	Female	26

**Table 4: Overview of the participants**

#### 4.4.3 Conducting the Interviews

Initially we wanted to carry out the interviews face to face with the participants to make the interview a little more personal, in addition to observing the participants' expressions and creating a conversation. Due to the restrictions with Covid-19 it was not possible to meet the participants, and we chose to hold the interviews through video conferences in order to make it somewhat personal (Merriam & Tisdell, 2015). We started out with a trial interview to make sure that all the questions were understandable and formulated right, that the interview had a natural flow, and that the questions were not too personal. Further, we made sure that both researchers were present during each interview, where we both had separate roles. One asked



the questions and held all the interviews, while the other one took notes and made sure none of the questions were forgotten. By having different roles during the interviews, we gained an integral picture of each participant, as one person created a conversation, while the other observed. Before the interviews we sent out a consent form to each participant to make sure they knew what we were going to talk about. We also started every interview by presenting ourselves and some small talk. This to create a relation with the participants and make them feel more comfortable. Further we talked a little bit about our thesis and also pointed out that there were no wrong answers, ensuring the participants that they could speak as freely as they wanted. When we had gone through all of the questions related to the theory, we finished with an open question, asking if the participants wanted to add anything they saw as relevant for our thesis. We planned for the interviews to last around 30-45 minutes. We did not want to exceed this, as we know how hectic the student life can be. On average, the interviews ended up taking approximately 33 minutes.

## **4.5 Analysis of data**

Data analysis is a procedure of making meaning out of data, which includes reducing and interpreting what has been said in the interviews, in addition to what we as researchers have read and seen (Merriam & Tisdell, 2015). In qualitative research it is easy to get overwhelmed by the large amount of data. Data analysis is therefore a process which is supposed to bring structure and meaning to all of the data collected (Ghauri et al., 2020). Collection of data and analyzing it should happen simultaneously in qualitative research, meaning that the process of analyzing the data already starts with the first document read, the first interview completed, and the first observation made (Merriam & Tisdell, 2015). To be able to analyze the mass of data, it should be divided, reduced and sorted, where the analysis is used to gain understanding and to answer the research question (Ghauri et al., 2020). Further, the reduction of data is the process of simplifying and selecting relevant data from the transcription (Ghauri et al., 2020). A lot of researchers chose to hire someone to transcribe the interviews because it is time consuming. As the collection and analysis part happens simultaneously, we chose to transcribe our own interviews, so that we gained insights in our data at an early stage (Merriam & Tisdell, 2015). The next stage is for the researcher to generate categories and themes to get an understanding of the phenomenon studied (Ghauri et al., 2020). The process of analyzing qualitative data is known to be time consuming, however there has been developed software programs to help

with this process. This is called CAQDAS (computer-assisted qualitative data analysis software) (Ghauri et al., 2020). We used NVivo for this purpose. This program was offered and provided to us for free by our university, meaning that the quality of NVivo is considered appropriate, as well as being the most economically efficient choice. According to Ghauri et al. (2020) NVivo “... makes the coding and retrieval of text much faster and more efficient ...” (p. 147). With the use of NVivo we were able to organize and analyze our data. To get an overview, we started out with shaping out the main themes (table 5) based on the questions in our interview guide (appendix 4)

Theme	Question
Entrepreneurship	1, 2, 3, 4, 4a, 5, 6, 10, 11, 13, 13a, 19
Entrepreneurial intention	4, 4a, 7, 7a, 7b, 8, 8a, 8b,9, 9a, 9b, 10, 11, 12, 15, 15a, 15b, 18, 18a, 18b, 19
Gender	4, 4a, 5, 6, 7, 7a, 7b, 8, 8a, 8b, 13, 13 a, 13b, 19
The University of Stavanger	12a, 13b, 14, 15, 15a, 15b, 16, 16a i, 16a ii, 16b i, 16b ii, 17, 19

**Table 5: Themes for the interview guide**

We divided the answers to the questions into codes (categories). E.g., we made a code “association”, which belonged to the theme “entrepreneurship” and the code “intention” in the theme “EI”, to get a system on the collected data. Some of the questions fitted several themes. By creating these themes and codes, it helped us to organize answers and compare questions, leading to us detecting the relevant findings to be able to answer the research question. These themes were chosen based on the research question: *“How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?”*. The theme UiS is relevant as this is the university the thesis will study. The Gender and entrepreneurship themes link to the perceived gender gap and the participants perception of entrepreneurship in Norway. The entrepreneurial intention theme covers the participants perceived capabilities and interest for entrepreneurship. These themes are therefore seen to cover the purpose of the thesis, which

is to investigate how UiS can enhance the entrepreneurial intention among their female students and thus potentially promote more female entrepreneurs in Norway.

## 4.6 Research Quality

Researchers should focus on ensuring that the study is trustworthy through conducting valid and reliable knowledge in an ethical manner (Merriam & Tisdell, 2015). “Regardless of the type of research, validity and reliability are concerns that can be approached through careful attention to a study’s conceptualization and the way in which the data are collected, analyzed, and interpreted, and the way in which the findings are presented” (Merriam & Tisdell, 2015, p. 238). To reason about the quality of our research we have chosen to look at the validity, reliability and objectivity for this research.

### 4.6.1 Validity

Validity revolves around whether or not we have investigated what we were supposed to investigate (Saunders et al., 2019). We have examined the internal and external validity of the thesis to evaluate the overall validity of the research.

**Internal validity** refers to dealing with how findings in a research match the reality (Merriam & Tisdell, 2015). According to Merriam & Tisdell (2015) the most used measurement to ensure validity is triangulation, meaning e.g., multiple investigators, sources of data and methods. Multiple investigators means that there are two or more investigators who are analyzing the findings independently (Merriam & Tisdell, 2015). Through the analysis of this thesis, we have chosen to compare our two independent analyzes to make sure that the interpretation of our findings and data are as valid as possible. Triangulation related to multiple sources is done by collecting data from people who have different perspectives (Merriam & Tisdell, 2015). We chose to interview people who are a part of the entrepreneurial environment at the University of Stavanger and people who are not a part of that environment to get different perspectives on how visible this environment is, in addition to how the entrepreneurial university ecosystem can be improved. With regards to use of multiple methods we have examined the interviews in relation to the theory, the documents that are portrayed in the context chapter, in addition to our own observations at campus (Merriam & Tisdell, 2015). Further, respondent validation is important to ensure internal validity. It is important that the participant's answers are genuine

and correct (Merriam & Tisdell, 2015). In order to ensure accurate and truthful answers from the participants, we emphasized the anonymity of the interview, that there were no wrong answers, and it was voluntary to answer the questions. This gives us reason to believe that our participants do not give inaccurate and false answers. Further, we have only included students at the University of Stavanger. We can however not generalize the answers and findings for all students at the University of Stavanger, since we only interviewed a handful of students. Additionally, we have not included teachers, professors or administration, meaning that we have excluded some of the population at the university. We did however choose to include both male and female students, even though this is a study about how to mainly increase entrepreneurial intentions amongst female students. We wanted to see if there were differences in their answers, in addition to the thought of male students contributing with interesting points of view and opinions. We think the collected information gives a good representation of reality and that the thesis has a high degree of internal validity.

**External validity** is if the findings and results of our research can be generalized and used in other situations or contexts (Saunders et al., 2019). E.g., in our case, if the identified measurer to promote more female entrepreneurs at the University of Stavanger can be applied to other universities or institutions. As mentioned, we have chosen to interview 12 students, six female and six male students. We have chosen the participants based on specific criteria, such as: gender, interest for entrepreneurship or participation in the entrepreneurial environment. Further, the research question limits generalization to other universities as we have chosen to only look at the University of Stavanger. However, the structure of the University of Stavanger might be similar to other universities. Some of the findings can then, to some extent, potentially be generalized while other parts will not.

#### 4.6.2 Reliability

Reliability refers to whether or not findings in a research can be replicated, meaning if the results will be the same if the study is to be repeated. Since qualitative research is based on human answers and behavior it can be problematic, since answers can change (Merriam & Tisdell, 2015). Merriam & Tisdell (2015) points out that qualitative research is hard to replicate, but that it does not mean the results should be discredited. Rather than focusing on if the same results can be found again, the focus should be on if the results are consistent with the collected data. Reliability concerns consistency and dependability. Because it is hard to avoid all sorts of errors and weaknesses (Merriam & Tisdell, 2015), we have chosen to clarify the weaknesses

with our research. According to Merriam & Tisdell (2015) the interviewer can influence the answers. We have therefore, for the most part, focused on asking the same questions, not interrupting the participants and limiting our use of body language. This was to avoid giving the participant hints about our thoughts on the topic or question. To ensure consistency, we chose to have the same and given roles throughout all the interviews. To ensure dependability we wanted to ensure the most natural setting possible. Because of the ongoing pandemic with Covid-19, in-person interviews were not a possibility. We therefore chose to conduct the interviews over video conferences through Zoom, a video communications app. This meant the participants could choose where they wanted to be seated during the interviews.

### 4.6.3 Objectivity

Objectivity means that the researcher(s) are able to avoid subjective and biased opinions and selection throughout conducting and reporting of the research (Saunders et al., 2019). Our objectivity as female researchers could be questioned, as the theme of the thesis relies around females. As women our previous view on the differences seems unfair. Our perceptions and belief is that the gender gap in entrepreneurship is far too big for a gender equal country such as Norway. We have therefore been critical to our role as researchers, and tried not to let our view on gender differences affect processes such as: what theory to include, which documents and observations to use, how we conduct the interviews and how we analyzed the collected data. To avoid only female perceptions, we interviewed the same amount of male and female students. We further used NVivo to code data, to systemize and make sure that no important data was overlooked. We were also careful not to use body language to show the participants what our view on differences between male and female entrepreneurship were, in addition to being careful to not express our opinions through conversation. Lastly, we got NSD (the Norwegian center for research data) to approve our research. NSD has approved the research, meaning that the quality of the research has been accepted.

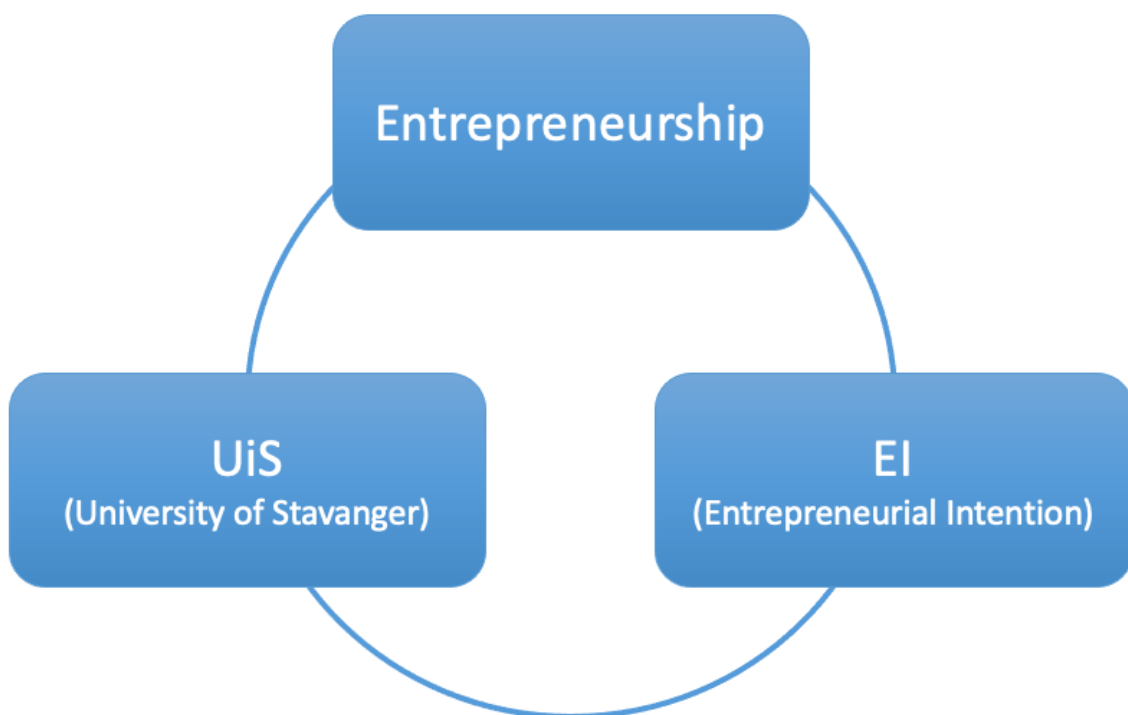
## 4.7 Ethics

“Ethics are moral principles and values that influence the way researchers conduct their research activities” (Ghuri et al., 2020, p. 23). Saunders et al. (2019) points out that when involving human participants through face-to-face interviews in the research, the ethical concerns are at their highest. In terms of ethics, one of the greatest dilemmas is deciding the

amount of information to share with the participants, in addition to how much privacy and protection the participants should have (Merriam & Tisdell, 2015). As mentioned earlier we did not share the questions we were going to ask beforehand, but we did share information about the theme to make sure that the participants knew what they were going to be talking about. Further, we anonymized all participants by calling them participant a-1. We also sent out a consent form so that the participants knew their rights to read the research or withdraw from it if they wanted to, in addition to their participation being voluntary. According to Saunders et al. (2019) a number of universities and organizations require researchers to get a formal approval on their proposed research before they start collecting data from a formal Research Ethics Committee. We chose to apply for an approval through NSD (the Norwegian center for research data). It is not a requirement from the university to apply for such an approval, unless in the cases where you are collecting data qualifying for such an approval. We applied for approval because we wanted to take voice recordings, which is an example for when to apply for approval. NSD approved our application, ensuring that the data collection is both safe and legal (NSD, 2021). The voice recordings were useful in the process of analyzing our data. The voice recordings made it easier to transcribe the participants' answers. "As researchers we have a moral responsibility to explain and find answers to our questions honestly and accurately" (Ghauri et al., 2020, p. 23). The transcriptions helped us present accurate statements and answers. It was mentioned earlier that we conducted the interviews in Norwegian. To better fit our research, we had to translate the answers to English. However, we did not change the context of the answers. Overall, we mean that our research is in line with ethical requirements, and that our questions were not too personal. We also acknowledge that there might be some minor errors due to the translation.

## 5. Findings

The purpose of this chapter is to present the findings from the collected data from the interviews. There were initially four themes in the interview guide, but after the data collection it was decided to present the findings in three themes: *Entrepreneurship*, *Entrepreneurial Intention (EI)* and *University of Stavanger (UiS)*. This is because questions in the gender theme interlink with the other three themes (Table 5). All of the questions are presented with a number which is displayed in brackets, e.g. the question about “associations” is linked to bracket [5]. This is to make it easier to follow and display the findings. The number each question belongs to is also shown in appendix 4.



**Figure 8: Identified themes for the thesis: Entrepreneurship, EI & UiS**

## 5.1 Theme 1: Entrepreneurship

When asked about their association to entrepreneurship [5], a majority of the participants emphasized that entrepreneurship was about innovation and wanting to create something on your own. Findings from the collected data indicated that the key associations for entrepreneurship were “having new ideas/creating something new”, “being innovative” and “running your own business”. Two of the participants also mentioned teamwork as a link to entrepreneurship. Pi) and Pj’s) answers stood out as they were the only ones who mentioned “developing a personal interest” and “further developing the country”, respectively. Further, findings showed that the male and female participants had different associations. 66,67% of the female participants mentioned “new ideas” and “innovations” as their association to entrepreneurship. Whereas for the male students, 66,67% of the responses were linked to “someone who runs their own business”, “is their own boss” and “has the willingness to act”.

Question [4] revealed that 75% of the participants had parents or someone close in their family who were or had been entrepreneurs. In the follow-up question, [4a], 66,67% of them clearly stated that their family had affected their view on entrepreneurship. Overall, they believed their families had given them a better insight and understanding of what an entrepreneur does, the work to be done and the benefits and challenges that come along with the occupation. Only one of the participants stated that his parents or family had *not* affected his view [4a]. However, two of the participants noted that they “might have been affected without them knowing it”, or they “did not realize it until they started their education”[4a]. 25% participants that they did not have or know of any family members that were entrepreneurs [4].

Participant Pb) answered this about her family’s impact:

[4] *I have never thought about it, but both my parents are sort of entrepreneurs. My father is a dentist and has started his own clinic. There is nothing innovative about it, but he has founded that clinic, and my mother has started her own upholstery business. So, in a way, they are both entrepreneurs I guess...*

[4a] *I have never thought about it, because their jobs are ordinary, a somewhat “standard” job. So I have never thought about their jobs in such a way before. But it has potentially affected me, in the way that I do not think of entrepreneurship as something that is so dangerous - like many others do...*



The question about the characteristics and attitudes which are important for entrepreneurs [6] showed a variety of answers from the participants. «Being positive», “flexible”, “believing in yourself” and “betting on yourself/having guts” were the most frequently mentioned answers. “To chase knowledge”, “be open minded”, “be creative” and “have and be able to create a good network around yourself” were also mentioned. 25% of the participants stated that there is no “single way” of how an entrepreneur should be or not be. Pa), Pb) and Pf) had this to say about the characteristics and attitudes:

*I don't believe... I don't think there is a fixed model of how an entrepreneur or someone who pursues entrepreneurship should look. It can vary from branch to branch, from business-to-business and.. Either what they are doing and how the person is, there are different personalities who can run the same kind of companies. And it can still work out. So, I do not believe that is always connected to personal characteristics... (Pa)*

*Wow, that is a good question. I don't think it's an easy answer. I believe almost all characteristics can be right. Most people need to learn the characteristics “on their way”. I would argue that there is no right answer to this question, because there are “many ways to Rome”. (Pf)*

When asked to describe the benefits of starting their own business [10], almost 60% of the participants pointed out the benefit of being able to “manage your own work schedule”. 50% mentioned “working for yourself/being your own boss” and 33,33% stated “freedom” as a benefit. However, when it came to freedom participant Pl) had the following comment:

*I want to say that the freedom part is important. The freedom is however somewhat made up too, because even though you can choose when to work - it does not really mean you can choose when you work. You have to work when you need to, and you need to sacrifice things and events and stuff when needed. It's not free even though you can in a way choose when you work. (Pl)*

25% of the participants, all female students, mentioned “working with something you are passionate about” as a benefit. 16,67% of the participants mentioned economic factors as a benefit, these were all males. “Creating jobs”, “more responsibility” and “learning whether you succeed or fail” were also mentioned by the participants. Participant Pj) mentioned more social responsibility as benefits of becoming an entrepreneur.

*Benefits? You can become your own boss. But as a girl, it is also about taking part of the societal structure at a higher level, in a way. You know there are far less female entrepreneurs in Norway in for instance in stocks. They don't own major parts of the society compared to men. So, what I want to say.. I would like to have my own business and contribute in such a way. Potentially I will become a role model and continue the good.. I feel.. There is a good trend now and one could contribute to this trend. I have, because of the #Huninvesterer campaign by DNB, become more motivated to invest in funds and stuff. And that is something I would like to continue to do as well, and that is because someone else started this campaign. And I would also then be part of this movement. That is in a way the biggest benefit(Pj)*

Oppositely to the benefits [10], the majority of the answers to the challenges of starting a business [11] were linked to economic factors and competence and knowledge. 66,67% mentioned economic factors, such as having enough resources, economic safety, and getting and having enough funding as a challenge for starting a business. 58,3% referred to entrepreneurship as a comprehensive process, where it's difficult to know how to proceed, how to structure things, how to apply for funding, know who to contact for business things, how to narrow things down or fear of stagnating when it comes to knowledge. One of the participants also mentioned that it is typical for women to think that “I need to know everything” before starting a business. “Risk”, “time”, “lack of support/network”, “work-life balance” and “fear of failing” were also mentioned.

*“There is a stigma around it that it's... it's perhaps not quite socially accepted to lose”. P1)*

Question [13] shows the participants knowledge about the gender differences when it comes to entrepreneurship in Norway. All of the participants answered that, although they did not know the exact numbers, they believed there were significantly more men than women. However, 25% of the participants mentioned that the number of female entrepreneurs had increased in recent years, or that the interest in entrepreneurship has increased, particularly for younger women. After explaining the number of women and men who want to pursue entrepreneurship and the gender difference of those who actually pursue entrepreneurship (Grünfeld et al., 2015), the participants were asked a follow-up question about [13] why they believed this difference had occurred [13a]. Findings from the analysis indicate that there is a general understanding that women are more risk averse than men. 66,67% of the participants mention “risk” as a factor

for the gender difference. These thoughts were explained by the general understanding that “men are more willing to take risks”, that “women think about consequences more than men” and that “women require more knowledge and tests before taking risks”. The majority of the participants also saw the gender gap as a result of the “traditional gender role views” or from a historical gender aspect. Some of the answers relating to the traditional gender roles were: “men have traditionally had more wealth than women”, “men are supposed to support their families, while women are supposed to take care of children”, “men don't think, they just do - while women over analyze” and “women doubt themselves more”. Participant Pd) noted that as entrepreneurship is more common among men, that women might think, “there are so few female entrepreneurs”, and therefore think that this it is something I would not do or pursue as a women. Overall, findings show that all of these factors were believed to be a reason for why women chose more safe jobs, and secure incomes rather than to pursue entrepreneurship. The second follow up question, [13b], is presented in the UiS theme section.

## **5.2 Theme 2: Entrepreneurial Intention**

All the participants in this research were chosen based on their interest in entrepreneurship, either through curricular or extracurricular activities. When asked about their interest in entrepreneurship [7], the participants had varying answers. Some of the participants had been interested in creating their own business from an early age. Others found entrepreneurship interesting for managing a future business and being independent, whilst others found it interesting just to be able to create something new and unique. Other findings showed that some of the participants were interested in entrepreneurship, but on a more theoretical basis, and were merely interested in understanding the more strategic and development part of the entrepreneurial process. Even though some of the participants answered that they were not sure if they wanted to become an entrepreneur or start a business themselves, but that they were interested in being part of an existing start-up and possibly contributing to someone else's idea. Participant Pb) had the following to say about their interest in entrepreneurship:

*I am not sure if it's something I necessarily want to do myself, but I think it is very nice to know that it is an option, because you don't need to have a “normal” job. You can be creative and create lots of exciting jobs yourself too if you don't find anything that suits you. (Pb)*

Question [7a] was constructed to understand how, what, why or who made the participants interested in entrepreneurship. 33,33% of the participants stated their interest was encouraged by curricular activities, mainly through courses and motivating professors. Findings show that it was only female participants that mentioned curricular activities as a trigger. Further, 33,33% said their interest was triggered when they joined extracurricular organizations, such as Start UiS and Level Up. Of these, 50% were female participants, and 50% were male participants. Participant Pg) said this about his interest:

*What has sparked my interest in entrepreneurship? Coincidences.. through voluntary student organizations, first through Start UiS and then Level Up. So mere coincidences really... (Pg)*

50% of the participants mentioned that their interest was connected to other people. Either through friends and family who already were entrepreneurs themselves, or by meeting or reading about others who pursued innovative and entrepreneurial occupations. 33.33% of these mentioned the fact that being around, seeing or reading about successful entrepreneurs, particularly those close to their own age, sparked their interest and made them want to pursue entrepreneurship themselves. One of the participants mentioned that their interest was connected to seeing how entrepreneurs take risks and further develop Norway and the globe. (Pi)

*And you know.. entrepreneurship.. it will develop the world - right. We need these entrepreneurs and innovative people to further develop ourselves. So, I believe it's extra exciting to watch those who actually dares to take risks. Because in a way.. it creates more jobs too. You see now, in Norway, that the oil is disappearing, and then we need something new, and you can see - especially in the Stavanger region, that there are many entrepreneurs and innovation types. As well as companies that are willing to invest and focus on new things. And I find that exciting. (Pi)*

Intention to start their own business	
YES	NO
75%	25%
Male / Female	Male / Female
66,67% / 33,33%	0% / 100%

**Table 6: Participants intention to start their own business**

75% of the participants answered “yes” when asked if they had the intention to start a firm of their own [8]. 66.67% of them were male participants and 33.33% female. Of these 75% (Table 6), 55% had already started a business. Of those who had started a business, 80% were male and 20% were female. The remaining 45% which had not started a business, but had an intention to do so, answered that they first would like to “have a regular job”, “use their education” and “not be dependent on a regular paycheck/wage”. One participants mentioned he would like to start his own business, but as a side project from/connected to his regular job.

The 25% who responded “no” were all female participants (table 6). One of the participants stated that they could join a start-up, but would never take the initiative to start something herself. Pk) stated “never say never”, but that she knew too little about entrepreneurship and thus had to answer no to question [8].

*No... or perhaps I could do it but a long time from now. I think it is important to have a solid capital before you start, so that you can be able to survive without secure income for a long time. (Ph)*

Although participant Ph) stated “no”, findings show that her answers were similar to several of the participants who answered “yes” [8], seen as follows:

*Yes, but not right away. I am very interested in interior design and stuff, so it would be fun to start something of my own and be able to work with it. But I think it has to be in about 10-20 years when I kind of have a more stable life and perhaps would like to do something new then. Also, that I am not that dependent upon a secure income. So, I believe so, but when I am older I think. (Pd)*

*Perhaps, but not for the next ten years. (Pg)*

*Yes I would like that. When? I am not sure.....[]Maybe in 5 years. I want to have a regular job where I can use and understand my education in a physical job, and perhaps start something on my own later. (Pj)*

The follow-up questions [8a] and [8b] show the reason why the participants want to start their own business and the reasons why they would not want to start their own business, respectively. Of the 75% who answered “yes” in question[8] (Table 6), 44.44% answered “working for myself”, “being my own boss”, “freedom” or similar to question [8a]. The other answers were linked to finding a solution to an identified problem in the market, creating a challenge for themselves, ensuring leisure or thinking their time at university is the best time pursuing entrepreneurship. 22% of them, all male, mentioned having a good idea and believing that they had the competence to start a business and solving a perceived gap in the market as reasons for starting their own business. Participant Pl) emphasizes the importance of time as a factor to start his own business.

*It's the fact that I believe that I can start something of my own which can give me freedom. Time is the most valuable resource - and some would say the only resource we have. And how you manage it is up to you, but I wish to manage it in the best way possible. And that's why I want to start something of my own. Not just because of the.. perhaps “luxurious” aspect around it, but because I can control how I spend my time. I can have freedom in my everyday life”. (Pl)*

For those who answered “no” in question [8b] (Table 6) , findings from question [8b] show that one of the participants, Pb) believed there is a lot of work surrounding entrepreneurship, and that motivation is very important. She felt that she lacked that motivation and did not have any new ideas. For now, she found it exciting to just see what others could do. As mentioned earlier, participant Ph) mentioned it was because she lacked capital/funding, and Pk) did not feel like she had the competence yet to start her own business yet.

When asked whether the participants talked to their family and friends about starting their own business [9], the majority, 66,67%, stated that they did indeed discuss this with their family and friends. Some of the participants stressed that, when it came to friends, they only talked to those

who were interested in entrepreneurship themselves or those who shared their interest. The findings showed that overall, the participants were supported by their family and friends when they discussed their intention of starting something of their own [9a]. However, they also experienced constructive feedback, particularly from their families, which was overall accepted as a positive thing among the participants. Some of the participants stated that their parents were not critical to them starting a business, but critical in the way that they wanted their children to understand how much work it is/what it takes before starting, or that it was important to focus on their education as well. These participants had the following to say about their conversation with their families and friends:

[9] *Yes I do.*

[9a] *They are honest, I would say. Uhm.. they are really supportive and if it's a good idea they will say it's a good idea. If the idea is bad, they rather spend time on talking about finding something else to do than about that it's bad. But really supportive. (Pg)*

[9a] *Yes I do, all the time. Definitely with my family, all of my family. Not all my friends though, but the people I think can give me general feedback, constructive feedback without being rude, or who I can have good discussions with. But not the people who just sort of support you either way or say negative things.*

[9a] *I'd say cautiously optimistic? My dad has always been like "yes it can go well if you do it right"....Others are just super positive and like "thumbs up" and stuff. I don't appreciate it that much then, because even though it's good support it does not give me that much feedback on what I am actually doing. (Pe)*

[9] *Yes both family and friends. It is very nice to have people around you - you know, who can say this is right, go for it, or if it is something that you should not pursue.*

[9a] *I have received a lot of support, but they have also been critical. My parents have told me when they have believed in an idea, and when they have not. They have made sure that I have not built myself an "air castle". Because that can be destroying. You just keep on building on an idea, which is just an "air castle" and will not turn out to be anything..... They have so far been good at stopping me at the right time. (Pf)*

33.33% answered that they did not share their thoughts/intention of starting a business with their family or friends [9a]. Two of the participants who initially stated "no" to this question

mentioned that even though they did not initiate the conversation themselves, they had parents who were interested in entrepreneurship and innovation who encouraged them to pursue entrepreneurship themselves. They further stated that when their parents brought the subject up, it was always in a supportive manner. The remaining participants argued that the reason why this was not a subject, [9b], was because they believed that the conversation was currently not relevant, or that no one in their family knew enough about entrepreneurship. It had thus not become a topic of conversation.

Question [12] displays the participants' own reflection of whether they believe they possess the qualities and attitudes that entrepreneurship requires. When asked this question, only one participant, Pa), clearly stated “yes”, explaining that he would not have started his business otherwise. Participants Pi) and Pg) stated “they believed so”. Participant Pe) was uncertain about his qualities, but stated he had the attitude. All of these participants were male students, and three of them are linked to the student incubator Level Up. The rest were more ambivalent in their answers. 66,67% answered that although they had some of the qualities and attitudes entrepreneurship requires, they still lacked some. 50% of all the students mentioned that they felt they lacked some of the knowledge that is deemed necessary. 25% of the participants, Pc), Pe) and Pf) mentioned that although they lacked some of the qualities and knowledge, they believed they would continue to learn more and new qualities throughout their entrepreneurial process. Findings show that all of these participants participating in the student organization, StartUiS and/or LevelUp, and all have their own startup. One of the participants, Pj), mentioned that she was risk averse, and believed that this quality was not suitable for entrepreneurship. She had this to say:

*I think yes and No. No in relation to.. I am probably a little at risk.. well, I do not have that “jump right into things» quality and the risk part. I think it is scary and I think in long terms - like now I am thinking about what is going to happen in 2 years, right. And it's like, I need to think more “here and now” and not think that much about the consequences. So that is a quality one should probably not have. That is what we learn too, that men are more “ let’s just do it” and “ don't care about anything” while we don’t do that. We have more thoughts about risk.*  
(Pj)

Some of the others answers from question [12] about whether they believe they possess the qualities and attitudes that it is believed that entrepreneurship requires:



*Attitude, yes. qualities - "neeh". To a certain extent? But it's like, I hope I get them in the long run. It's a bit like - I don't believe you have them until you start, and then you build them gradually. But the attitude I believe I have, in relation to the fact that I do not expect it to be a huge success right away. I know it's hard work and I am willing to work and things like that. But in relation to "know-how" and tacit knowledge in a way, I have no clue. (Pe)*

*If I have the qualities? Perhaps some of them, because I would say that I am focused (målrettet), engaged(engasjert) and structured and things like that. But I also like to have control and "fixed frameworks". So, I think that can be a bit stressful.. that I lack the "free spirit" and just "let's see how things turn out" and yeah.. (Pd)*

*Yes I believe so. That's why, in a way, I find it.. I surprise myself -like.. why do I not further develop it in a way. Because I feel I have the qualities that are needed to be an entrepreneur. In a way, you have to be innovative, you have to be creative, you have to be stubborn, convincing, have faith in yourself and believe that others believe in your product. And you need to be good at conveying, and sort of the message that has to do with the innovation is very important. And I believe I have that. (Pi)*

*I feel like I have some of it, but there is probably a lot more I need to have in place before I can potentially do something myself. I feel I have the, I find it exciting and want to be creative and all that. But I also feel like I don't have what it takes when it comes to courses and everything, like how to start.. and accounting and stuff like that. (Pk)*

58,33% of the participants reported "yes" to have taken entrepreneurial courses [15], whilst 41,67% reported "no". Of those who said "no", 80% were male students and 20% were female. Further findings show that, of the 80% male students who had not taken any entrepreneurship courses, 75% of them have started their own business. Participant Pc), who was the only female student who had not taken any entrepreneurship courses explained she had not been allowed to choose electives yet during her education. Participant Pl), male, stated the same. Some of the participants mentioned that they did not know about these courses until "it was too late". The follow-up questions to [15] were either why they had chosen these courses[15a] or what would need to be in order for them to choose these courses [15b]. The major reason for choosing entrepreneurship courses [15a] was related to interest. Although they found the courses/theme

interesting, some of the participants originally chose them because they were encouraged by friends or because it was mandatory. Participant Pe) stated it was because it was beneficial to take these courses because he could connect what he had learned and potentially implement it in his start up, while participant Pi) found it relevant for the future societal development.

*I chose it because I find innovation extremely interesting. Both innovation in an already existing business but also innovation and sort of creativity to a new idea. And because that's where our society is headed towards. That it has.. especially in Norway which has had oil as their cornerstone all these years. Oil is on its way out, and then Norway needs people who can think creatively. People who dare to think differently and new. People who are willing to take chances and face change. And also, to be able to lead these changes both in existing and new businesses.*  
(Ri)

One of the main reasons for why the participants had not taken entrepreneurial courses [15b] were linked to doubt concerning the context of these courses. It was believed that the courses were too theoretical. In order for the participants to choose these courses they would have to be more practical [15b].

33,33% stated they had been or were part of a startup which they had not started themselves [18]. 66,67% said they were not part of a startup. However, when asked if they want to join or take part in a startup [18b] the majority was positive to the thought of it. Of the 66,67%, 25% mentioned that they would like to finish their degree first. Others stressed the focus on time and said that the amount of time it would take would be an important factor. One participant would want to join the starting phase to get more experience, whilst another said it would have to be in his leisure time - and not at the expense of a real job.

### **5.3 Theme 3: The University of Stavanger**

Based on and in relation to question [12] in the EI theme section, “do you believe you possess the qualities and attitudes that entrepreneurship requires”, the participants were asked if they believed the entrepreneurial ecosystem at the University of Stavanger could do anything to help or strengthen these qualities and attitudes [12a]. These were some of ideas that were identified: “professors could contribute with their theoretical knowledge”, “provide offices and working

space for students”, “UiS could arrange more entrepreneurial events”, “provide more practical courses and training which is relevant for the business life”, “create a new field of study called entrepreneurship”, “organize entrepreneurship classes in which you have introductory classes of entrepreneurship in the students first semester and build upon this class in the following semester”, “encourage, promote and provide more entrepreneurship classes across disciplines”, “talk about gender differences and why they exist”, “show and talk about the pros and cons of becoming an entrepreneur”, “promote entrepreneurship classes as good and positive”, and lastly “too provide networking arenas and supervisors”.

When asked about if and what UiS could do to decrease the gender gap in Norway [13b] the participants had several recommendations. Although not specific for a gender, it was suggested that: the University could directly contribute money to serious students who want to establish stock companies, or it could help students start their businesses and help finding their first customers. Creating an environment where you can talk with others who are in a similar situation was also mentioned. Further findings were to minimize the risk for students, to provide practical experience and remove the uncertainty around starting a business. More gender related answers were to create an environment that increased the interest in entrepreneurship among women before they start working and getting their own families, to engage the female students who have just started their education, to remove the generalized taboos of women pursuing entrepreneurship, promote changes in attitudes towards female entrepreneurship and offer more female focused entrepreneurial events. In addition, it was stated that there is generational change with an understanding that women take more risks now than earlier.

Findings from question [14], “Do you know about the entrepreneurial offers UiS have (both curricular and extracurricular activities), showed that 75% of the participants knew about the extracurricular activities, mainly the student organization StartUiS and incubator LevelUp, whilst 25% did not. When it came to the curricular activities, mainly referring to courses, findings indicate that the participants did generally not know about the scope of courses that are offered at UiS. Some stated they only knew about the courses they had taken themselves, or that they only knew about the courses that were offered to their field of study. One participant mentioned that he knew about a lot of courses, but due to his field of study he was not allowed to take these courses. Of the courses the participants did mention, the majority of them turned out to be “innovation” courses rather than “entrepreneurship” courses and the courses linked to

the Innovation specialization at The UiS Business School. 33% also mentioned that they knew about the *financial activity* at UiS, Validé.

66,67% confirmed that they were part of or had been part of the entrepreneurial environment at UiS [16]. If the participants answered “yes” to this question, they were asked to first explain how they came to be in the environment [16ai], second if they had benefited from it [16aii]. Findings from [16ai] show that of the 66,67%, 87,5% joined due to mere “coincidences” or “luck”. Only one participant stated that he had reached out to the environment himself. The reason was that he needed help with his already started business. Further findings show that this was also the only participant who did not feel like he benefited from being part of the environment [16aii]. All the rest, all felt they had benefited from their participation [16aii]. Some of the benefits that were pointed out were: “practical learning”, “networking”, “new understanding of innovation and entrepreneurship”, “more than one solution” “create and organize events” and even “organize organizations”. Participant Pe) also commented that it had reduced his perceived risk.

33,33% reported that they were not part of the entrepreneurial environment at UiS [16]. These students were thus asked why they had not participated in the environment [16bi] , and what would need to be in order for them to join [16bii]. The reasons for why they had not participated in the environment [16bi] were: “Not willing to use my leisure time for it”, “I don't have the time because of work and school”, “I don't feel like an entrepreneur, I'd prefer to work in a team in a big organization” and “I did not know there was an entrepreneurial environment”. In order for them to consider participating [16bii], one of the participants mentioned that she would join if the participation could be like an internship/course. In that way, she would not have to use her leisure time for it. The others mentioned getting more information about the environment, about the environmental process, about what the different organizations do and how it could benefit them.

There were varied answers and suggestions when it came to what the entrepreneurial ecosystem at UiS could do to increase the interest in entrepreneurship [17]. Some of the participants stated that UiS generally had to increase the focus around entrepreneurship, communicate its importance clearer, and provide more courses, events and workshops. Furthermore, including practical training in their courses. Two of the participants mentioned promoting entrepreneurial offers more on social media and by using cookies. It was further suggested that UiS had to use

“important people” to promote these activities and understand the importance of the extracurricular environment for entrepreneurship. Other suggestions were creating a bachelor or a one-year program for entrepreneurship. Some of the students insisted on having more guest lecturers who are entrepreneurs, or that UiS could provide an “entrepreneur scholarship” which could let you pursue and work on your idea and business one year after you finished your master’s degree. The scholarship would give you time and money to pursue your idea instead of having to go straight to “regular work”. Participant Pj) commented that UiS should make it easier to choose entrepreneurial courses. She further said that UiS should create “course codes” and display the entrepreneurial electives better for each study program on students profiles on Student Web. It was stated that students have to search for the electives themselves now, and that they are not always easy to find. Pe) answered as follows [17]:

*In relation to the curricular activities, I would find it interesting to have more guest lectures to be honest. Entrepreneurs in different stages, preferably someone who has succeeded or made it this far. Or someone who has started and is working on financial things. Then one could see the different parts of it. There is something about it being less scary when you see others do it, and that they do well and are not “dad-smart”. They are just willing to work hard. And I feel there would be a bigger chance for others to do it also then. Rather than it being “wow it's so much”. (Pe)*

## **5.4 Summary of Key Findings**

Some of the key findings in theme 1, *Entrepreneurship*, were the different associations [5] to entrepreneurship between the female and male participants. The females responded more in general terms, linking entrepreneurship to “innovation” and “having new ideas”, whereas the males associated entrepreneurship with more masculine characteristics such as “someone who runs their own business”, “is their own boss” and “has the willingness to act”. It was further seen that a majority of the participants felt that their parents or close family had affected their view on entrepreneurship [4a], and that the main challenges [11] for pursuing entrepreneurship were linked to economic factors, competence and knowledge. Lastly, the participants identified the gender gap [13a] as a result of women’s risk aversion and lack of confidence. They also stated that it was linked to the traditional gender roles in the Norwegian society.

In theme 2, *Entrepreneurial Intention (EI)*, it was found that 50% of the participants stated their interest in entrepreneurship [7a] was linked to other people. 33.33% stated it was due to curricular activities while 33.33% mentioned it was because of extracurricular activities. The interest generated from curricular activities was, however, only mentioned by the female participants. Further, findings showed that the entrepreneurial intention among the participants was high. 75% stated they had the intention to start something of their own. Of the remaining 25% participants who did not have this intention, all were female. When it came to the participants' own reflection of whether they had the qualities and attitudes that entrepreneurship requires [12], findings showed the majority of the participants were ambivalent in their answers. Of those who stated they believed they had what it required, were all male participants [12].

Key findings from theme 3, *The University of Stavanger (UiS)*, was how UiS could potentially help and decrease the gender gap in Norway [13b]. Findings showed that the participants believed UiS could help by removing the generalized taboos linked to women and entrepreneurship, promoting changes in attitudes towards female entrepreneurship, offering more female focused entrepreneurial events and practical training. Another finding showed that the participants generally did not know the scope of the entrepreneurial courses offered at UiS [14], and those who had participated in the extracurricular activities [16ai] had joined due to “coincidences”. Lastly, in order for UiS to increase the general interest for entrepreneurship [17], the participants stated the need for more practical training in the courses, having more guest lectures, to communicate entrepreneurship importance clearer, as well as making it easier to find and choose entrepreneurship courses. Some of the answers in [13b] and [17] were also seen as factors that UiS could provide in order to help the students strengthen their qualities and attitudes for entrepreneurship [12a].

## 6. Discussion

The aim of this thesis was to investigate how the entrepreneurial ecosystem at the University of Stavanger could help diminish the identified gender gap in the Norwegian society, by enhancing female students' entrepreneurial intentions. This created the basis for our research question: *How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?*. In order to answer the research question, the thesis first investigated the overall understanding of how the entrepreneurial environment in Norway is perceived by the participants. Second, it connected this perception with the participants' answers to see whether it had affected their level of intention, interest and subjective perceptions of their own entrepreneurial capabilities. Lastly, based on this information, the thesis looked into what the entrepreneurial ecosystem at UiS could do to generally enhance the interest in entrepreneurship, and as such contribute to increasing female students' entrepreneurial intention. In doing so, also promoting more female entrepreneurs in Norway. These three parts will be discussed in conjunction with our most important findings, utilized theory and documents.

### 6.1 Entrepreneurship

To get a better understanding of the participants' overall perception of entrepreneurship, in relation to the Norwegian entrepreneurial environment, the participants were first asked about their associations [5], then about the qualities and attitudes they believed were needed [6], and the perceived benefits [10] and challenges [11] of entrepreneurship. Lastly, if they knew about the gender differences in Norway [13]. The participants' associations of entrepreneurship were found to match the theoretical definitions and understanding of entrepreneurship in this thesis [5]. The associations were linked to creating an own business (Grünfeld et al., 2019), innovation (Tidd & Bessant, 2013) and having new ideas (Alsos et al., 2015). Participant Pj) also associated entrepreneurship with something that would further develop the country, which can be linked to the theories about entrepreneurship and social and economic development (Cabrera & Mauricio, 2017; Grünfeld et al., 2015). It was observed that there were differences in the answers between the female and male participants when it came to their associations [5]. While the majority of female participants responded in more general terms: “having new ideas” and “innovations”, the male participants' answers were more linked to masculine characteristics

(Gupta et al., 2009; Perez-Quintana et al., 2017): “someone who is their own boss”, “has the willingness to act” and “someone who runs their own business”.

Evidence from the literature shows that entrepreneurship can be understood as a cultural phenomenon (Bruni et al., 2004) and creating a business is seen as a social construction or practice (Perez-Quintana et al., 2017). As stated by Alsos and Ljunggren (2018), social norms affect one's choice of establishing a business. The participants' understanding and association of entrepreneurship can thus be said to be linked to the Norwegian culture and social norms, as well as the Norwegian understanding and attitude to entrepreneurship. The Norwegian culture might thus be the reason for the different associations between the sexes [5]. The participants' association's towards entrepreneurship are arguably positive [5], supporting the findings from Alsos and Ljunggren (2018) who notes that the Norwegian population generally has a positive attitude towards entrepreneurship. However, Norway has a relatively low entrepreneurial intention (EI) rate (Grünfeld et al., 2019). Entrepreneurial intention is as presented, an individual's commitment to pursue entrepreneurship (Krueger & Brazeal, 1994). Norway's overall EI rate was 5.74% in 2019 compared to the global average of 23.72% in 2019 (GEM, 2020). Norway is considered to be a developed country. The accessibility of energy sources has led Norway to become one of the leading exports of oil and natural gas, making Norway one of the richest countries in the world (FN-sambandet, 2021). It also holds one of the globe's highest ranks when it comes to living standards (Thuesen et al., 2021). This wealth has provided the population with a good infrastructure and a solid welfare system, which is evidently also why people are more reluctant to choose entrepreneurship as an occupation (Røed & Skogstrøm, 2014). There is more risk associated with pursuing entrepreneurship, because it implies giving up the safety surrounding full-time employment. The tradeoff of pursuing entrepreneurship is uncertain, which is arguably why entrepreneurship is considered to be a less attractive occupation. This is also why, as mentioned by Røed and Skogstrøm (2014), people who have more uncertain jobs are more likely to establish a business than those with more certain jobs. However, although the intention is still relatively low, it was identified in the context chapter that the entrepreneurial intention rate in Norway has increased from 2015 to 2019, from 4.78% to 5.74% (GEM, 2020). Although the Norwegian population have a positive attitude towards entrepreneurship they are reluctant to start their own business due to an uncertain trade off. It was also found that a majority of those who actually establish new businesses are created by people who already are self-employed. This means, as recognized by



(Alsos & Ljunggren, 2018) that there is a small amount of the population who is actually responsible for a large share of the entrepreneurial activities in Norway.

As seen from the theory, gender stereotypes is a worldwide phenomenon and refers to the general social belief about the characteristics and attributes associated with women and men. It further displays the traits the different sexes are believed to possess (Powell & Graves, 2003). Existing literature indicates that the global gender stereotypes connect masculine traits with men and feminine traits with women (Gupta & Bhawe, 2007). It further shows that entrepreneurship is affiliated with masculine traits (Gupta & Bhawe, 2007; Perez-Quintana et al., 2017). The entrepreneurial occupation is therefore often associated with men. When asked about the characteristics and attitudes that are important for entrepreneurs [6], the findings showed that “being positive”, “being flexible”, “believing in yourself” and “betting on yourself/having guts” were most frequently mentioned. This somewhat contradicts what the theory presented. Although “believing in yourself” and “betting on yourself/having the guts” are arguably connected and associated with masculine characteristics (Gupta et al., 2009), it is seen that “being positive” and “being flexible” are more linked to what theory identifies as feminine characteristics (Perez-Quintana et al., 2017). “Being able to network” was also stressed as an important factor, which can be linked to “connectedness”, which is also seen as a feminine trait (Gupta et al., 2009; Perez-Quintana et al., 2017). This indicates that there might be a change in the beliefs of which attitudes and characteristics are needed for an entrepreneur. This is potentially linked to a generational change in the society. The participants of this study are millennials or generation Z, and are seen to acknowledge the need for both feminine and masculine traits. Participant Pa), Pb) and Pf) answers further supports this by stating that “most characteristics are good”, that “everyone can do it if they get help” and that “there is not a fixed model of how an entrepreneur should be”.

“Manage your own work schedule”, “working for yourself/being your own boss” and “freedom” were the most frequently answered benefits [10]. These responses were repeated by both the female and male participants. However, as seen in the findings, the female participants also emphasized the possibility to work with something you are passionate about and having a societal responsibility. Either by creating jobs, as stated by participant Pc), or by being a role model and inspiring other females, Pj) [10]. It indicates that there are different views about the benefits of being an entrepreneur between the sexes. From our findings, it seems there are more personal reasons for females to pursue entrepreneurship, such as interest, passion and social

responsibility. Although the monetary aspect was hardly mentioned, those who did mention it were males. It is also worth noting that the perceived benefits are somewhat similar to the male participants' responses about their associations of entrepreneurship [5].

Theory showed that the income factor and the lack of competence and knowledge were identified as the biggest hindrances for the Norwegian population when it came to pursuing entrepreneurship (Grünfeld et al., 2015). The findings are consistent with the theory, as the majority of participants answered “economic factors”, “competence” and “knowledge” as the perceived challenges with entrepreneurship [11] (Nærings- og fiskeridepartementet, 2015). Although theory indicates that the elderly are more concerned about economic factors (Grünfeld et al., 2015), this was the most frequent concern among the participants in this research. This finding can be linked to the perceived uncertainty surrounding the tradeoff of entrepreneurship. In their answers, the participants acknowledge that by pursuing entrepreneurship, they are potentially giving up a secure income. The various and beneficial conditions in Norway have seemingly created a stigma around entrepreneurship, because it is not perceived as a traditional choice of work. It is associated with risk, and due to the social benefits of a regular job, it can seem as the population has deemed it as taking on unnecessary risk. Participant P1) states that it does not seem like it is socially acceptable to lose in Norway. This might be linked to the perception that Norway's wealth and beneficial conditions should, in a way, make it harder to “lose”. These perceptions and thoughts were also identified in the participants' answers, where it was seen that some of the participants have a “fear of failing”. This is arguably why competence and knowledge are considered to be one of the biggest hindrances and challenges, both found in the theory and again in the findings of this research. It indicates that people are afraid of not knowing enough to start a business, because it can lead to failure. It could therefore be argued that this has potentially hindered several businesses from starting. The theory of planned behaviour (TPB) model supports this, as the *attitude towards the behavior*, in this case, the attitude for entrepreneurship, could be negative due to the fear of failing. People could, due to socially constructed stigma, have an unfavorable evaluation of entrepreneurship (Ajzen, 1991) which in turn will decrease a person's entrepreneurial intention. As mentioned earlier, entrepreneurial intention (EI) is evident for whether or not a person pursues entrepreneurship. In relation to competence and knowledge, one participant stated that it was typical for women to think “you need to know it all” before starting a business. This is potentially why, as supported by Alsos et al. (2015), women are on average older than men

when they start their own business in Norway. Feeling mature enough and relying on their experience and qualifications is thus seen as more important for women (Alsos et al., 2015).

The utilized documents in this thesis showed that 70% of all entrepreneurs in Norway are men, while 30% are women (Grünfeld et al., 2015). It was also found that the number of female owned and established businesses that exist and are well functioning, decreases significantly after five years. This, as seen in the context chapter, indicates that something hinders women more than men in Norway when it comes to pursuing entrepreneurship (Grünfeld et al., 2019), which in turn leads to there being far less female entrepreneurs than males in Norway (Kulturdepartementet, 2019). More recent numbers also illustrate the huge gender gap when it comes to entrepreneurship in Norway. Findings from GEM (Global Entrepreneurship Monitor) showed that the female/male TEA ratio (the number of female entrepreneurs per male entrepreneur) in Norway was 0.44 in 2019 (GEM, 2020). For every male entrepreneur, there were 0.44 female entrepreneurs in 2019 in Norway. This ratio is relatively low compared to the global TEA average in 2019, which was 0.71. The TEA ratio is also seen to be lower in 2019 than in 2015, with the rates showing 0.44 versus 0.51, respectively. However, this reduction can be linked to the overall entrepreneurial intention rate. As mentioned earlier, the overall entrepreneurial intention rate in Norway has increased from 2015 to 2019 (GEM, 2020). This could mean that, although the female number of entrepreneurs have increased, as seen in (Appendix 3) the male counterpart has increased even more, and leading to a large difference on the TEA scale. This does, however, still result in an underrepresentation of female entrepreneurs in Norway.

Findings from question [13] about the gender gap in Norway showed that there were an overall perception among the participants that there are more male than female entrepreneurs in Norway. This perception was particularly seen in participant Pj) answer in relation to the benefit [10] of starting something of your own:

*The benefits? You can become your own boss. But as a girl, it is also about taking part of the societal structure at a higher level in a way. You know there are far less female entrepreneurs in Norway, for instance in stocks and stuff. They don't own bigger parts of the society compared to men.... (Pj)*

In the follow-up question [13a],  $\frac{2}{3}$  of the participants stated that the gender difference was due to women and their tolerance for risk. As seen in the theory, there is a global understanding that men are more willing to take risks than women (Gupta & Bhawe, 2007). The gender stereotypes associate risk-taking with masculine traits, further attributing this characteristic to men (Gupta et al., 2009). As women are perceived to be more risk averse (Perez-Quintana et al., 2017), they are believed to need more time and knowledge before they pursue entrepreneurship. This finding also confirms Alsos et al. (2015) observations and relates to question [11] about challenges. The gender gap was also identified by the participants as a result of “traditional gender role views”, whereas mentioned earlier, entrepreneurship has been associated with masculine traits and the occupation is thus linked to men (Gupta & Bhawe, 2007). Historical stereotypes about women and men were believed to affect the number of female entrepreneurs, such as women doubting themselves more and men having more access to capital. The traditional family roles, where men support the family and women take care of children was also recognized by the participants in this thesis. It is believed that these traditional roles still affect the society's understanding of women and men's role at work and in society as a whole. Our findings therefore link to the work of Alsos et al. (2015), which also states that the gender pattern of entrepreneurship has “historical roots”. The pattern is, as they state, connected to how gender, capital and businesses is perceived by the Norwegian population and culture (2010). As our findings show, the pattern seems to still linger in the society as both the distribution of capital between the genders and traditional gender roles were mentioned by the participants [13].

## **6.2 Entrepreneurial Intention**

Findings from the interviews showed that 9/12 participants had the intention to start their own businesses [8]. It indicates a higher intention than one would assume after the finding about Norway's relatively low intention rate (GEM, 2020). The high intention rate might be linked to the overall interest among the participants, through their participation in curricular and extracurricular activities. It could also potentially be linked to the perceived change in the Norwegian society, where the government is shifting its focus from oil and gas to innovation and entrepreneurship for economic growth (Nærings- og fiskeridepartementet, 2015). This view was found in participant Pi) answers in [7a] about interest, and in question [15a] about his reason for choosing entrepreneurship courses. It is however argued that these numbers are not representative for the general student population at the University of Stavanger, as having an

interest in entrepreneurship was one of the criteria's to participate in this research. Nonetheless, of the nine participants that had the intention to start, six were males and three were females. Although the findings indicate that there is a high intention rate among the participants of this study, it was seen that several of the participants, particularly the female participants, wanted to start their business in the "distant" future. This was seen in the answers of participants Pd), Pg) Ph) and Pj) who are all female. Although they have the intention to establish a business, they want to wait a couple of years to gain more experience and capital first. These findings support the work of Alsos et al. (2015), referring to the importance of experience and resources for women and why women are on average older when they establish their own businesses. This can be interpreted as women being more cautious and risk averse (Perez-Quintana et al., 2017).

3/12 participants stated that they did not have the intention to start their own business and all of these participants were female. It is hard to determine exactly why only female participants responded in such a way, and why there is a perceived need to "know it all" before women establish businesses. Although theory has sought to find reasons for the gender gap in industrialized countries, for instance reasons like risk tolerance and self-efficacy levels, there is no accepted explanation (Micozzi, 2017). As mentioned in the theory, Minniti and Nardone (2007) argue that it is the subjective perceptions, rather than objective perceptions of one's capabilities that are important when it comes to pursuing entrepreneurship. This is because it links to a person's attitude towards entrepreneurship. In relation to the gender gap, the authors insist that if women feel they have what it takes, the skills and knowledge to engage in entrepreneurship, as well as believing they will be successful, they will be more willing to pursue entrepreneurship (Minniti & Nardone, 2007). However, more recent work emphasizes that entrepreneurial intention is not only connected to the general attitude towards entrepreneurship, but it is also linked to social norms (Alsos & Ljunggren, 2018). Further, Berglann et al. (2011) concludes that gender is a key factor for becoming an entrepreneur.

As discussed earlier, the social norms when it comes to entrepreneurship is generally in favor of males due to gender stereotypes and the masculine affiliations of entrepreneurship (Gupta et al., 2009). This has created a global gender gap when it comes to entrepreneurship. This is as seen earlier, also the case for Norway, where the female number of entrepreneurs is only around 30% (Grünfeld et al., 2015). It was also stated by the participants that the traditional gender roles still linger in the Norwegian society, and that the gender pattern for entrepreneurship is

still linked to men. These perceptions of entrepreneurship make it harder for women to pursue entrepreneurship, because as seen in the theory, the gender stereotypes about entrepreneurship are strongly biased in favor of men (Gupta et al., 2005). These stereotypes are seen to create implicit barriers that hinders women from becoming entrepreneurs. This in turn impacts women's entrepreneurial intention rate negatively, which is also why women overall have a lower rate of intention than men (Miranda et al., 2017). The lower intention rate is due to the challenges and difficulties they encounter in their business creation process (Cabrera & Mauricio, 2017), such as accruing “social, cultural, human and financial capital” (Gupta et al., 2009, p. 398). As the social norms and gender stereotypes have a negative effect on women's entrepreneurial pursuit, it is fair to assume that the occupation might be considered less attractive for women (Cabrera & Mauricio, 2017). These factors might be the reason why only female participants responded that they did not have an intention to start a business [8], and why the female participants preferred to wait and gain experiences before starting their own businesses. It could be argued that the Norwegian culture has given them the perception that it is more difficult for them, and thus making it harder for them to choose this occupation as well. The result of these gender stereotypes can arguably also be found and linked to the findings in question [12] about perceived behavioral control.

Perceived behavioral control in the Theory of Planned Behavior (TPB) refers to if a person can take the measures needed to become an entrepreneur (Ahmed et al., 2020), or if one has the competence and ability to become self-employed (Zhang et al., 2014). Findings show that only male participants, Pa), Pe) Pi) and Pg) stated that they think they have what it takes, in terms of the qualities and attitudes, to become an entrepreneur [12]. The other participants were somewhat ambivalent in their answers. Therefore, it seems like the male students have a higher degree of perceived behavioral control, which in turn gives them a higher entrepreneurial intention rate. It also links to the Entrepreneurial Event Model (EEM) theory about perceived feasibility, which determines EI through whether or not a person has the confidence in themselves to start, run and own a business (Schlaegel & Koenig, 2014). It was especially the female participants who pointed out that they needed to learn more before potentially taking the leap to start something of their own. Additionally, to having a need for control and being too risk averse. This indicates that the male students have more confidence in themselves to start something of their own, meaning they have a higher degree of perceived feasibility. As discussed earlier, it is possible that the social norms in Norway have affected the outcome in question [12], due to it being easier for men to pursue entrepreneurship than women. This has

in turn possibly affected women's subjective perception of their own capabilities, and why the female participants were more ambivalent in their answers. The perceived feasibility and perceived behavioral control seem to be lower for the female participants, which we see have a negative effect on their entrepreneurial intention rate.

The theory showed that the exposure of peer influences and role models have a positive effect on entrepreneurial intention and self-efficacy levels (BarNir et al., 2011). It further showed that role models are evident in shaping the cognitive state of “wanting” to pursue entrepreneurship (Verheul et al., 2012), and can be linked to the theory of subjective norms (Ahmed et al., 2020). Social pressure from people who are perceived as important, which can be either family, friends, peers, professors and the society as a whole (Ahmed et al., 2020; Zhang et al., 2014) are found essential for influencing entrepreneurial intention. Based on the theory, it is arguable that the people who are perceived as important can be identified as role models. In accordance with the theory, our findings also show a link between role models, entrepreneurial intention and self-efficacy levels. This is found in the answers to question [4a], where a majority of the participants confirmed that their parents or family had affected their view on entrepreneurship. Based on the TPB model (Ajzen, 1991), parents and close family have a significant role when it comes to entrepreneurial intention. Both through *subjective norms*, which is determined as social pressure from role models, and through either enhancing or reducing a person's *attitude towards the behavior* (Ajzen, 1991). This means that they can influence how their child values entrepreneurship (Zhang et al., 2014), and their attitude of, e.g., wanting to start something of their own (Ahmed et al., 2020). The role model's influence for entrepreneurial intention is arguably also connected to the EEM (Shapero & Sokol, 1982 according to Ahmed et al., 2020). As found in the theory, a person's perceived desirability for entrepreneurship, namely the attraction and attitude for entrepreneurship, can be shaped through role models (Davids, 2017). From the findings, participant Pb) stated that her parents had made entrepreneurship seem “less dangerous”. Other participants mentioned that because of their parents and or close family, they had a better understanding of what an entrepreneur actually does and knew more about both the benefits and challenges related to the occupation. It was also shown that their influence had reduced the risk associated with entrepreneurship. This indicates that role models are positively correlated with pursuing entrepreneurship (Davids, 2017). This can further be interpreted as, if the participants have parents or close family who have a positive influence when it comes to entrepreneurship, they will be more likely to pursue entrepreneurship. This is also confirmed in EEM, where people with a positive attitude towards entrepreneurship are more likely to choose

this occupation (Davids, 2017). In relation to the self-efficacy levels, the results from [4a] showed a better understanding and lower risk association with entrepreneurship. This can potentially increase students' perceived feasibility (Schlaegel & Koenig, 2014), as their role models affect and influence their understanding of entrepreneurship. This could increase their confidence and thoughts about starting their own business.

Referring back to the theory about social norms, social pressure from society also influences entrepreneurial intention (Ahmed et al., 2020). The pressure from society was explained especially well by Pi) who talked about how entrepreneurship creates more jobs. He also talked about how the oil industry will become less relevant in the future, and that Norway will need a change. This was, as mentioned earlier, the reason for his choice of entrepreneurial courses. It implies that the social pressure, especially found in the “oil capital” Stavanger, has influenced him to pursue activities linked to entrepreneurship. Role models, “important people” and the society as a whole can thus be seen to influence the attitude, attraction and understanding of entrepreneurship. If the influence is positive, these factors are shown to increase a person's entrepreneurial intention as seen from the TPB and EEM model, thus making entrepreneurship a pragmatic choice of occupation. In relation to gender, besides one participant, it was seen that both the female and male students were affected by parents or family [4a]. Theory does however indicate that when it comes to entrepreneurial intention and self-efficacy levels, role models have a stronger effect on women than men (BarNir et al., 2011).

Existing literature indicates that there is a connection between the number of female entrepreneurs and the number of female role models (Berglann et al., 2013). It is found that men and women usually look for role models who have the same sex (Bosma et al., 2012). Markussen and Røed (2017) stated that the underrepresentation of female entrepreneurs in the past might be linked to the underrepresentation today. This was also acknowledged by one of the participants in the thesis, Pd), who said that there had historically been more men than women pursuing entrepreneurship in Norway, and she meant this could be a reason for why there are still more men than women who choose entrepreneurship as a career path. As previously mentioned, role models play an evident role for increasing entrepreneurial intention (Ahmed et al., 2020; Verheul et al., 2012; Zhang et al., 2014). This means that as there currently exists more male entrepreneurs than females in Norway, men have more same-sexed role models to look up to (Markussen & Røed, 2017). This means that, as there are few female entrepreneurs in Norway, there are also few female role models. It was pointed out by the



participants that female role models could be of value for the female students, because they can relate better to them. As women are inspired more by women, the lack of female entrepreneurs potentially affects the overall entrepreneurial intention for women in Norway. Women have generally a lower entrepreneurial intention rate, due to general gender stereotypes and socio-cultural factors that hinders them from becoming entrepreneurs (Cabrera & Mauricio, 2017). These hindrances, which are constructed from socio-cultural stereotypes and traditional gender views are arguably the reason why there are fewer female entrepreneurs in Norway. Which in turn leads to fewer female role models, which further contributes to the underrepresentation of female entrepreneurs. The socially and culturally constructed views on entrepreneurship is an essential part as to why there are fewer female entrepreneurs in Norway. The gender pattern in Norway was recognized by one the participants, who had the following to say:

*.... I believe it can be, it can be a hallmark, that perhaps as entrepreneurship is more common among men, then it in away become like.. that you see “okay there are not that many other women who do it”, and then you think that it perhaps is not something you would do as a woman. (Pd)*

As there are more male entrepreneurs, and as men and women tend to seek role models of the same sex, Berglann et al. (2013) theory becomes accurate for the Norwegian entrepreneurial environment. If there already exists differences between women and men’s entrepreneurship propensity, the difference is seen to be strengthened over time due to a “social infection”. This will happen as long as men and women's entrepreneurship propensity correlates positively by the fact that there exist entrepreneurs in the society that has the same sex (Berglann et al., 2013). This will in turn create a ripple effect in the society. It was found earlier that a large share of the entrepreneurial activities in Norway is driven by a small amount of the population (Alsos & Ljunggren, 2018). Previous findings also show that 70% of the entrepreneurs in Norway are men (Grünfeld et al., 2015). This means that if this population mainly consists of men, and if the new business establishments are created by people who are already self-employed, namely men, the underrepresentation of female entrepreneurs will continue. This is because men are responsible for the majority of entrepreneurial activities in Norway, which in turn leads to fewer female entrepreneur role models.

### 6.3 The University of Stavanger

Krueger and Brazeal (1994) argue that “Entrepreneurs are made, not born” (p. 102), implying that universities play an evident part in promoting entrepreneurial intention as educators. The entrepreneurial education (EE) offers, is found to be a combination of both *curricular* and *extracurricular activities* (Arranz et al., 2017), and is seen to support students' entrepreneurial intention and interest by developing competence, qualities, attitude, knowledge and awareness linked to entrepreneurship (Fayolle et al., 2006). *Financial support* was also recognized as an important element (Shirokova et al., 2018). When asked about the entrepreneurial offers at UiS [14], 75% stated they knew about or were aware of the extracurricular activities, whilst 25% did not. One participant even stated that he did not know that such an environment even existed. 4/12 participants knew about Validé, which represents the financial activity in the University's entrepreneurial ecosystem (UiS) (Figure 7). When it came to the curricular activities, findings showed that the students generally did not know about the scope of courses that were offered at UiS. Further, that the majority of courses the participant mentioned were more “innovation courses” rather than “entrepreneurship courses”. Nevertheless, the findings indicate that approximately 58% of the participants stated that they had taken entrepreneurial courses, while 42% had not [15]. Some of the courses were, however, taken at other universities. In relation to question [14], findings showed that 8/12 had been or were part of the entrepreneurial environment at UiS, referring to the extracurricular activities such as Start UiS and LevelUp [16]. 7/8 stated that the reason they joined the environment was due to “coincidences” [16ai]. This indicates that the students might not have joined the environment unless these “coincidences” had occurred. One participant mentioned that, after being rejected by other organizations, their “fadder” encouraged them to join StartUiS. The findings do however show, to some extent, that the extracurricular activities had increased the interest in entrepreneurship for some of the participants. 33.33% stated their interest had been triggered when they joined extracurricular organizations [7a]. Those who were not part of the environment [16bi] stated that it was partially due to: time and not being willing to use their spare time for it, not having enough information about the organizations or because they simply did not want to pursue entrepreneurship. Overall, the answers indicate that there is not enough information or enough marketing surrounding the entrepreneurial offers at UiS.

Although the students had not searched for the entrepreneurial environment themselves, findings showed students are more likely to end up joining the extracurricular activities when

they first become aware of them and meet other participants who are part of the environment. Findings from question [7a] showed that 50% of the participants mentioned that their interest in entrepreneurship was based on or connected to other people. Their interest was for instance linked to friends or family members or by meeting and being around others who pursued entrepreneurship. It was also stated by the participants that seeing other successful entrepreneurs close to the participants' own age, namely entrepreneurs in their 20's or early 30's increased their interest in entrepreneurship. These findings contribute to the theory about peers and role models, where these peers that the participants have mentioned, act as role models, making the occupation more attractive and achievable (Markussen & Røed, 2017). This arguably shows how important it is to have entrepreneurial role models for new students who can promote these kinds of activities. Of those who had participated in the entrepreneurial environment at UiS, 7/8 stated they had benefited from their time in this environment [16aii]. As seen in the findings the students stated that it had given them more practical learning experiences, a larger network, organizational skills and a better understanding of entrepreneurship. It was also mentioned that it had reduced one of the participants' perceived risk. This evidently has increased both the student's competence and knowledge when it comes to entrepreneurship, thus increasing the confidence to start a business of their own. For the extracurricular activities, those who were not part of the environment, said they would consider joining if they got more information about the organizations and the overall environmental process, as well as the benefits they would potentially get from participating [16bii].

As seen earlier, approximately 58% of the participants had taken entrepreneurial courses, while approximately 42% had not [15]. Regarding the courses that are offered at UiS, it was stated in [15b] that there is doubt surrounding the content of these courses. The participants believed the courses were not practical enough. Additionally, findings showed that it was especially the female participants who have taken entrepreneurial courses [15]. This also links back to question [7a] about interest, where 33.33% of the participants responded that their interest had been encouraged by curricular activities through courses and motivating professors. The findings further showed that of these 33.33%, all were female participants. Overall it indicates that the female participants seek more knowledge and competence around how to start a business of their own, which further corresponds with the theory about perceived behavioral control (Ahmed et al., 2020) and perceived feasibility (Schlaegel & Koenig, 2014). As mentioned earlier, males have a higher degree of perceived behavioral control and confidence, giving them a higher entrepreneurial intention rate. This is, as discussed, potentially a result of

gender stereotypes and the social norms implemented in the Norwegian culture. Entrepreneurship is affiliated with men (Gupta et al., 2009; Perez-Quintana et al., 2017), which might be why the female participants in this study also believe that they need to seek more knowledge and competence before starting their own business. It further links back to question [8] about intention, where the majority of female participants either answered “no” or that they preferred to wait and gain experiences before starting their own business. As mentioned in the theory chapter, students with some sort of entrepreneurial education (EE) are better at recognizing opportunities, have a higher entrepreneurial intention (EI) rate, in addition to being more likely to start something on their own than students that do not have any sort of EE (Ahmed et al., 2020). EE has previously been discussed as an evident factor for increasing people’s EI (Krueger, 1993 according to Davids, 2017). The findings in this thesis reflect the importance of entrepreneurial education to promote entrepreneurial interest and intention (Fayolle et al., 2006), specifically for women.

Those who had taken entrepreneurship courses stated that they had chosen these courses based on interest [15a]. In relation to the interest, it was previously shown that a majority of those who have taken entrepreneurship courses were women. Further, there were only females who mention curricular activities as a factor for their interest in entrepreneurship [7a]. In relation to this information, some notable observations were e.g. participants Pj) who stated that she had chosen to take an entrepreneurship course due to the encouragement of a friend [15a]. Further, it was mentioned by another female participant Pb) that her interest in entrepreneurship had come from inspiring professors. These findings support the theory about social pressure. The theory indicates that people who are perceived as important, such as the peer and professor that was mentioned in [7a] and [15a], as well as family and friends in [4a], can be linked to influence entrepreneurial intention (Zhang et al., 2014). This in turn supports the theory about the importance of peers and role models (Markussen & Røed, 2017) for entrepreneurial intention and self-efficacy levels, and that role models seem to have a stronger effect on women (BarNir et al., 2011). Although the role models’ gender in these questions was not stated, existing literature assumes that women are more influenced by women, and men are more influenced by other men (Markussen & Røed, 2017). Another interesting observation in the findings was as mentioned earlier that of Pi), and his response for choosing entrepreneurship courses [15a], and his interest in entrepreneurship [7a]. He chose them because of their perceived relevance for future careers and societal development. His answers align with the findings about Norway and Stavanger, referring to needing “something new” in order to meet the global sustainability

goals. Further indicating an understanding that there is a transition in place to become less oil dependent (Nærings- og fiskeridepartementet, 2015), where participant Pi) stated: the oil is “disappearing”, especially in the Stavanger region. He thus recognized the need for new jobs and the role entrepreneurs play in creating these new jobs. There were also other participants who mentioned an association between entrepreneurship and societal development [5]. This indicates that the participants understand the current situation in Norway and Stavanger, and that there is a need for change.

On the basis of question [12], we wanted to see whether the participants believed the University of Stavanger could do anything to help or strengthen the qualities and attitudes entrepreneurship requires [12a]. This is believed to, in turn, increase the interest and thus the entrepreneurial intention among students. As mentioned, Universities are often seen to provide students with higher levels of entrepreneurial intention if they offer entrepreneurial activities that are linked to entrepreneurial education: curricular, extracurricular and financial activities (Shirokova et al., 2018). These activities are linked to the university's entrepreneurial ecosystem and are meant to support entrepreneurial developments and initiatives (Guerrero et al., 2020). The activities are further supposed to raise awareness about entrepreneurship, offer support, help build students competence, as well as providing students with resources (Arranz et al., 2017). The findings show that the participants believed there were several things the entrepreneurial ecosystem at UiS (Figure 7) could do to enhance both the qualities and attitudes for students. This indicates that the participants believe the entrepreneurial ecosystem at UiS is an important factor when it comes to entrepreneurship. This is also the view of the Government in Norway, which believes universities are necessary to provide competence and promote entrepreneurial skills (Nærings- og fiskeridepartementet, 2015). Existing theories also indicate that students who have been encouraged by their university's entrepreneurial ecosystem have a higher tolerance for risk (Guerrero et al., 2020), and those who have received entrepreneurial training have more confidence in themselves in relation to starting their own business (Arranz et al., 2017). As seen in the findings, participants desire more cooperation with professors and supervisors, more events and generally for the University to better showcase all of the aspects surrounding entrepreneurship across all disciplines. The latter was particularly emphasized by participant Pj). She mentioned that there were for instance no nurses who attended Level Up's 2021 “health hackathon” event. She stated that this was evidently because they did not know about the event. This was because the marketing about this event did not reach them. Further, she stated it was due to nurses not having the same option when it comes to either

entrepreneurship or innovation courses. They are therefore not aware of the possibilities their jobs have in relation to entrepreneurship, and therefore they don't perceive these kinds of events as relevant. Although the entrepreneurial ecosystem at UiS offers both curricular and extracurricular activities, as well as financial activities, it seems, based on the participants' answers, that they are not promoted well enough [14]. The University needs to take these answers into account, as the educational entrepreneurship offers are evident in their Green-restructuring 2030 Strategy (UiS, 2020a). It further seems like if UiS had promoted their entrepreneurial subjects better, that more students, especially female students might have a higher degree of perceived behavioral control, in addition to increasing EI by participating in more entrepreneurial courses.

In relation to question [13] about gender differences in Norway, the participants were asked how UiS, and the entrepreneurial ecosystem could potentially help decrease the entrepreneurial gender gap in Norway [13b]. Some of the answers were linked to removing the social taboos associated with female entrepreneurship and promoting changes in attitudes. The social taboos relate to the gender stereotypes and the historical and traditional gender roles as illustrated and mentioned in question [13]. It was further suggested to create an environment that increased the interest for female entrepreneurs and having events that focused on female entrepreneurs. As mentioned earlier, women are more likely to pursue entrepreneurship when they have female role models to admire (Berglann et al., 2013; Bosma et al., 2012). Linking this to what the University and entrepreneurial ecosystem could do, theory finds that if the university's entrepreneurial ecosystem is able to provide their students with role models, the students will have a better chance of overcoming perceived barriers and difficulties (Ahmed et al., 2020). It was also stated earlier that students who are encouraged by the university's ecosystem have a higher risk tolerance (Guerrero et al., 2020). By providing education and training in entrepreneurship, students are more inclined to have the confidence to pursue entrepreneurship, as they will have a better perception of their own competence and skills (Arranz et al., 2017).

As discussed earlier, women are seen to have a lower entrepreneurial intention rate, due to the barriers and hindrances created by the social and cultural association of entrepreneurship (Miranda et al., 2017). Since there are less female entrepreneurs in Norway, and thus fewer role models, it could be argued that this affects women's overall view of their skills and competence. This is potentially because entrepreneurship is still strongly biased in favor of men (Gupta et al., 2005). However, it was seen by several of the participants that there is a perceived change

in the Norwegian society. They acknowledge that there were more female entrepreneurs in the younger generation. Further, it was reported that the participants had observed more women who were engaged in the extracurricular activities at UiS. It was thus stated that UiS should “strike while the iron is hot” (Pg), referring to seizing the opportunity while the interest in entrepreneurship among women is growing and helping it increase. Participant Pg) observation generally sums up the participants view of the gender differences.

*I have also noticed that in the younger generation there are more women. At least from what I have seen, there are more women who are starting businesses. I think it's also a cultural change, that before men were supposed to run and start businesses, and now luckily it's not like that anymore. So I believe that if women were just let into the market it would help a lot. Women see that other women have already done it. Women see that it is actually possible, because the men at the top who are trying to prevent women from getting up there, are disappearing. So I hope that the “glass roof” will disappear and I hope that this will stabilize the percentage distribution. (Pg)*

In question [17], the participants were asked how the University of Stavanger (UiS) could increase the interest in entrepreneurship. There were a lot of suggestions and comments on what UiS could do, which indicates that UiS has room for improvement when it comes to their entrepreneurial activities and offers. Findings showed that several of the participants mentioned enhancing the communication surrounding the entrepreneurial activities that were offered. Utilizing social media and cookies were suggested to increase the awareness of the entrepreneurial offers. Further, to improve the communication about the entrepreneurial offers, specifically for curricular activities, it was stated that UiS need to improve both the perceived and actual quality of the courses. The participants suggested that this could be done by having more practical training, workshops and events. Further by allowing for cooperation with the business community. Participant P1) mentioned that in his field of study, one of the assignments is to create a website for e.g., a company. This type of assignment allows the students to interact more with the business community, and possibly create something of value for the company. He stated that this type of learning is very relevant and could give beneficial real-life experiences. It was further suggested to have “important people” who could promote/be ambassadors for the entrepreneurial activities at UiS. Other suggestions were to create an own entrepreneurial study program, making the existing courses open and more easily accessible across disciplines. Having a financial support systems such as an “entrepreneurship

scholarship” was also mentioned. Some of the participants also stated that it would be beneficial for UiS to educate about the importance of networking and relationship building. It was seen by the participants that UiS needs to make entrepreneurship seem more “harmless”. This could be done by allowing students to test their ideas, such as participant Pf) has described:

*There are several people at UiS who have the same mindset, which is to just start in the oil business. They just want to get an education and go straight to work. Most people seek a kind of secure income and a secure job. So, for both sexes, UiS should work with finding a way of facilitating and minimizing the risk so that students can be able to test their ideas and just play a little. That we should.. now is the time to test it out. “Does it work, does it not work?”. Show that there is a low threshold....this will engage both men and women and you will reach out to more people. (Pf)*

Several participants commented on how more role models would help in terms of seeing entrepreneurship as a possible career path. The participants pointed out that it would be beneficial to have more guest lecturers who are entrepreneurs, and also preferably have entrepreneurs who are in different process stages. This is emphasized by participant Pe) in question [17] in the findings. The participants particularly emphasized that involving entrepreneurs as guest lectures and practical training in the courses would help remove a lot of the risk and uncertainty associated with starting a business. The findings indicate students believe that having entrepreneurs to look up to is both helpful and inspiring. Further, they believe these guest lectures can increase the overall interest for entrepreneurship, and make more people, including themselves, want to pursue or consider pursuing entrepreneurial activities. This contributes to the existing theory, whereas discussed earlier, these “important people” or guest lectures can operate as role models. Role models are seen as an evident factor for enhancing people's entrepreneurial intention (BarNir et al., 2011; Verheul et al., 2012). Ahmed et al. (2020) found that the universities that can provide role models also have students who are more likely to overcome barriers and difficulties. Further, that entrepreneurial education can increase students' confidence and trigger an inspiration to pursue entrepreneurship. Thus, as pointed out earlier by participant Pd, having female entrepreneurs as guest lecturers could be valuable for female students, as they are more likely to relate to them. The observed answers show that there is a general understanding that the entrepreneurial offers are connected, which aligns with what was presented in the theory about entrepreneurial education (Arranz et al., 2017; Shirokova et al., 2018). Based on the findings, the participants'



answers illustrate an understanding that one needs all the entrepreneurial activities to work together in order to increase the interest, competence and knowledge and thus the EI. It is, however, apparent that the entrepreneurial ecosystem at UiS needs to neutralize the idea that pursuing entrepreneurship is difficult and minimize the risk associated with the occupation.

## 6.4 Summary of Discussion

In summary, this chapter has addressed the research question: “*How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs*”. This has been done by analyzing and discussing the collected data in conjunction with the three developed themes: *Entrepreneurship*, *Entrepreneurial Intention* and *The University of Stavanger*, the presented theory and documents. Although the three themes were discussed in separate sections, some of the questions to each theme were interlinked with other themes.

The first theme, *Entrepreneurship*, looked into the participants' perception of entrepreneurship in Norway. It was seen that although the Norwegian population and the participants have a positive attitude towards entrepreneurship, they are somewhat reluctant to start their own business. Particularly the female participants. Generally, it was because it implied giving up the safety full-time employment has to offer. Further, when asked about the challenges associated with entrepreneurship, both sexes mentioned economic factors, competence and knowledge. Lacking competence and knowledge was, however, particularly emphasized by the female participants. The participants identified the gender gap in entrepreneurship as a result of traditional gender roles which still linger in the Norwegian society. It was found that the gender pattern for entrepreneurship is still linked to men. Further, gender stereotypes associated with entrepreneurship create implicit barriers for women, which in turn leads to there being far less female entrepreneurs than males in Norway.

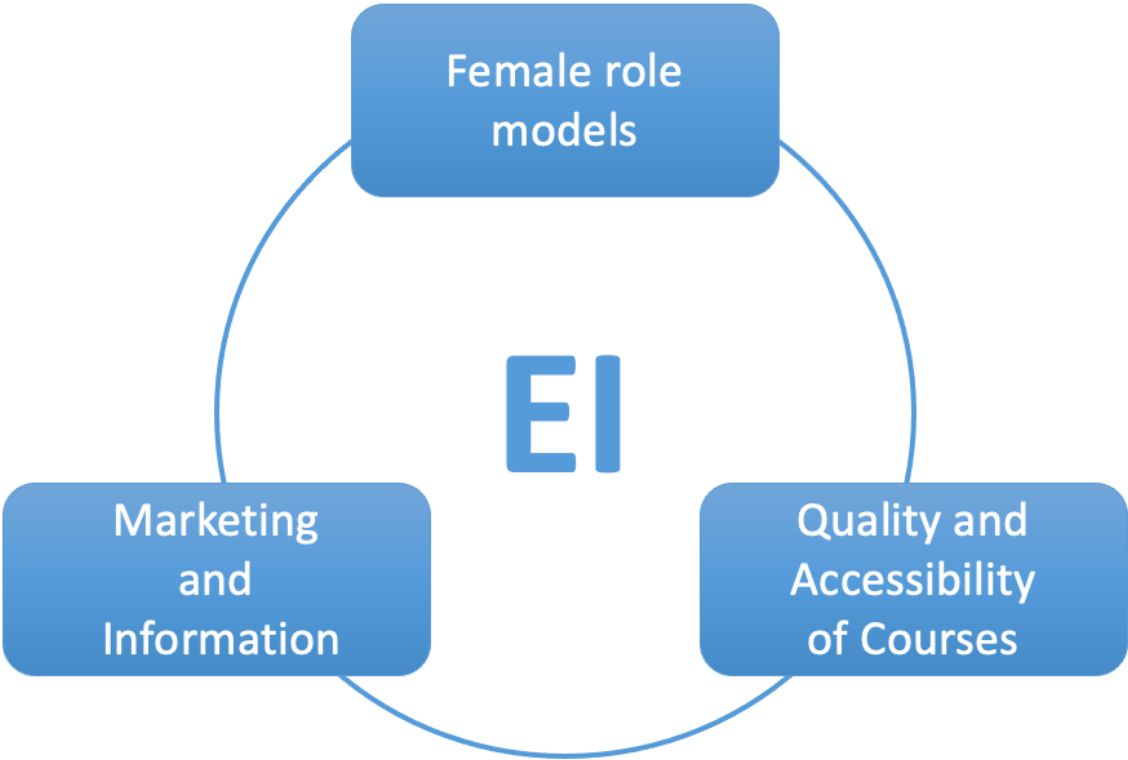
The *Entrepreneurial Intention* theme observed whether the perceptions from theme 1 had affected the participants overall level of intention. Based on the findings, it is seen that the social norms and Norwegian culture has shaped the participants' perception of entrepreneurship and of their own capabilities. It was found that the male participants have a better subjective perception of their own capabilities, a higher degree of perceived behavioral control and perceived feasibility, and that they were generally more confident in themselves to start

something of their own. This gave them a higher entrepreneurial intention rate. The female participants were seen to doubt their capabilities more, emphasizing the need for experience and knowledge before starting a business. Role models were identified as essential factors for promoting entrepreneurial intention. It was found, both in the theory and findings, that women are more influenced by women. As there are less female entrepreneurs in Norway, there are also fewer female entrepreneurs to look up to. This creates a ripple effect and sequentially leads to less female entrepreneurs in Norway. This results in a generally lower entrepreneurial intention rate for the women in Norway, as well as for the female participants of this thesis.

On the basis of the previous themes, the last theme, *The University of Stavanger* investigated how the entrepreneurial ecosystem at UiS could increase the entrepreneurial intention rate among their female students. It was seen that the overall entrepreneurial education needs to be enhanced, both in terms of the curricular and extracurricular activities that are offered. Findings showed that the information sharing and marketing about the offers need to be better. The participants believed that providing more practical courses, having more guest lectures, promoting changes in attitudes, making entrepreneurship courses more accessible and having events that focused on female entrepreneurs could increase the female students' interest in entrepreneurship.

# 7. Conclusion

The purpose of this thesis was to investigate the following research question: “*How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?*”. Findings from the thesis showed that in order to promote more female entrepreneurs, the entrepreneurial ecosystem at the University of Stavanger (UiS) needs to foster and develop women's entrepreneurial intention (EI). The thesis identified three measures which can potentially increase the entrepreneurial intention among the female students at UiS. To conclude, these three measures are: providing and exposing the students with more *female role models*, enhancing *the quality and accessibility of courses* that are offered and further, bettering the *marketing and information* about entrepreneurship as an occupation, as well as the entrepreneurial offers at UiS. These measures are interlinked, and both cover and influence all parts of the entrepreneurial ecosystem, namely curricular, extracurricular and financial activities. The measures are, based on the findings, utilized theory and documents, linked to increasing female entrepreneurial intention, and can as such contribute to promoting more female entrepreneurs in Norway.



**Figure 9: Measures to increase the number of female entrepreneurs in Norway**

Providing more role models is an essential finding in this thesis. By providing female students at UiS with more female role models, the students will see that it is possible to become a successful entrepreneur as a woman in a line of business that is dominated by men, and has been for a long time. It can make entrepreneurship seem more harmless for those who are doubting their abilities to become an entrepreneur and therefore, increase EI amongst female students at UiS. Additionally, introducing more female entrepreneur role models to female students who are interested in entrepreneurship can potentially increase their intention. This is because women are more influenced by other women. UiS can therefore, for instance, look into creating a mentorship where they provide and include female mentors. These mentors can share their information and knowledge about entrepreneurship, and guide and teach the students how to manage the process of starting something of their own. In addition, the mentors could help them avoid pitfalls and reduce the uncertainty surrounding entrepreneurship. Further, seeing someone's success story could possibly inspire more people to pursue entrepreneurship. UiS could also arrange more events and include more guest lectures where female entrepreneurs are invited to speak. This can lead to more female students being inspired to become entrepreneurs, and thus increasing their EI.

Based on the findings in this study, it was found that only the female participants mentioned curricular activities as a factor for their entrepreneurial interest. Lacking the competence and knowledge, which is perceived as necessary for entrepreneurs, is one of the biggest hindrances that was acknowledged by the female participants. Therefore, UiS should facilitate courses which can increase the female students confidence, perceived behavioral control and perceived feasibility. It is seen that women doubt themselves and their capabilities more. However, it was stated that the female participants who had participated in the extracurricular activities had benefited from the practical learning experiences and that they had gotten a better understanding of entrepreneurship. Since the finding showed that several of the female participants did not want to use their leisure time for extracurricular activities, UiS should implement more practical training in their curricular courses as well. It was further found that entrepreneurship courses should be implemented across all disciplines and that the entrepreneurship courses that are electives should be accessible for students at all faculties. This might require UiS to change some of their study programs. By opening up more entrepreneurship courses, or by implementing these courses across study programs, more students will become aware of them.

This change will also show and confirm that UiS believes entrepreneurship and innovation are evident in all lines of work. This can lead to more women choosing these courses, because the enhanced focus on these courses can indicate its relevance for future careers. Additionally, this can potentially create a ripple effect, where women will see that fellow female peers are choosing these courses, making them want to choose them too. These measures will increase the quality of the entrepreneurial education, which will strengthen entrepreneurial intention amongst female students.

The findings showed that several of the participants knew little about the entrepreneurial activities offered at UiS. They knew about the mandatory courses in their study programs, but generally not the scope of the entrepreneurial courses that were offered. Further, the findings showed that most of the participants knew that extracurricular offers existed, but not what they comprised. By enhancing and promoting the activities better, it can lead students to actually wanting to join these organizations, rather than joining due to mere coincidences. UiS should reshape their marketing strategy for its entrepreneurial activities and promote the importance and benefits associated with entrepreneurship. The income factor was seen as the biggest hindrance for pursuing entrepreneurship by the participants. UiS should focus on introducing and promoting their financial relation to e.g. Validé to show that there are organizations that can provide financial support for student entrepreneurs. This can minimize the financial risk, possibly removing the income factor as a hindrance and make entrepreneurship seem more attractive.

To promote and enhance entrepreneurial activities, it is important that UiS reach out to students at different events and that they are visible both on campus and online through social media. There seems to be a general perception that one needs an idea or to be in a development process in order to join the entrepreneurial environment. By fixing this narrative and showing that there is a low threshold to join or take part in the environment, one could potentially see an increased interest. Further, through their promotions, UiS should inform more about the overall entrepreneurial occupation to increase the knowledge and reduce the uncertainty associated with entrepreneurship.

To answer the research question, *“How can the entrepreneurial ecosystem at the University of Stavanger promote more female entrepreneurs?”*, the following conclusion is made. By providing more practical training, including more female entrepreneur role models in their

entrepreneurial activities as well as improving the marketing and information sharing about entrepreneurship, UiS can strengthen the female students knowledge, competence and awareness for entrepreneurship. It can also reduce risk and uncertainty of entrepreneurship. These measures can increase women's entrepreneurial intention, leading to more women pursuing entrepreneurship in Norway.

## 7.1 Limitations of the Study

The scope of this master thesis is in itself a limitation due to the magnitude of the research and the time constraint. With more time, the research could have conducted additional interviews. Because of the limited number of participants in this research, the findings may not reflect the opinions of the whole population in the ecosystem at the University of Stavanger (UiS). Further, as around 50% of the participants in this thesis are part of the extracurricular activities in the entrepreneurial environment at UiS, it presents a selection bias. The findings in this thesis are therefore not representative for all students at UiS, meaning the findings cannot be generalized. Lastly, this research has only looked at the participants *intention* to pursue entrepreneurship, not if they *actually* end up pursuing entrepreneurship. Therefore, we cannot guarantee that, based on our findings, the participants end up choosing entrepreneurship as a profession. The concluding measures are thus not guaranteed to increase the number of female entrepreneurs in Norway.

## 7.2 Further Research

As seen in the limitations section, the number of participants in this study indicates that the findings cannot be generalized for all students at the University of Stavanger (UiS). In order to support the findings in this research, a suggestion for further research is to investigate and include a greater number of participants. By conducting qualitative research through e.g. a survey, it would be possible to generate more answers and opinions, meaning it could be generalized to a higher degree. This could strengthen the reliability of the research. Further, this research only investigates the ecosystem at the University of Stavanger. Similar research could be done at other universities, providing a basis for comparison between the findings at the different universities. If the findings are similar, the concluding measures of this thesis could potentially be applied to other universities as well. This thesis finds female role models to be

relevant to increase entrepreneurial intention among female students. It could therefore be interesting to further investigate if role models and possibly offering a mentorship could in fact increase the entrepreneurial intention and entrepreneurial action. Lastly, this thesis has only looked at students' entrepreneurial intention, not if intention turns into action. Further research could therefore be to investigate if students claiming they have intention to start something of their own, actually ends up doing so. Or if people who have pursued entrepreneurship have been affected by entrepreneurial education and university ecosystems.

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## 9. Appendix

*Appendix 1.* Number of entrepreneurs in personally owned enterprises and private and public limited companies (SSB, 2021a).

	2019	2019	2019	2019	2018 - 2019	2017 - 2019
<b>Number of entrepreneurs</b>			Share	Per cent	Per cent	
<b>Personal owned companies</b>						
Both sexes	39596			100.0	10.7	8.0
Males	24056			60.8	11.6	7.5
Females	15540			39.2	9.3	8.8
<b>Private and public limited companies</b>		95% CI lower bound	95% CI upper bound			
Both sexes	31264	30846	31681		-1.1	-3.5
Males	24877	24580	25175	79.6	-1.9	-4.3
Females	6381	6238	6525	20.4	1.7	-0.4
<b>Sum</b>	31258			100.0		

*Appendix 2. Personal owned enterprises, by owner age, education, national background and sex. New established enterprises (SSB, 2021a).*

	2019					
	Sole proprietorship			Other personal owned enterprises		
	Actors Total	Share of men	Share of women	Share of men	Share of men	Share of women
<b>Total</b>	38495	100.0	100.0	1101	100.0	100.0
<b>Age</b>						
16-24 years	6221	17.1	14.7	167	17.0	10.5
25-44 years	21139	52.5	58.6	588	54.6	50.3
45-66 years	9664	25.5	24.5	311	24.8	36.9
67 years or older	1467	1.4	2.2	35	3.6	2.2
Unknown age	4	0.0	2.2	0	0.0	0.0
<b>Level of education</b>						
Primary and lower secondary education (level 1-2)	7289	22.2	13.9	218	22.0	14.3
Upper secondary education (level 3-5)	11813	34.7	24.6	356	10.7	26.8
Tertial education, 4 years or less (level 6)	9195	19.1	31.3	306	26.4	31.2
Tertial education, more than 4 years (level 7-8)	5088	10.8	17.0	161	11.6	22.3
Other	5110	13.3	13.2	60	5.5	5.4
<b>National background</b>						
Norway	27102	71.0	69.6	902	83.0	79.3
EU/EEA, USA, Canada, Australia and New Zealand	4010	9.5	11.8	58	4.8	6.4
Asia, Africa, Latin-Amerika, Oceania, except Australia and New Zealand and Europa except EU/EEA	5756	14.9	15.0	129	11.6	12.1
Non-Norwegian citizen, living outside of Norway	1627	4.6	3.6	12	0.6	2.2

*Appendix 3: Entrepreneurs that are persons in newly established private and public limited companies, by education, age and sex (SSB, 2021a).*

	2018			2019		
	Number of entrepreneurs	Share of men	Share of women	Number of entrepreneurs	Share of men	Share of women
<b>Total</b>	31623	80.2	19.8	31264	79.6	20.4
<b>Level of education</b>						
Primary and lower secondary education (level 1-2)	4055	82.7	17.3	3952	82.9	17.1
Upper secondary education (level 3-5)	12412	85.2	14.8	12357	84.7	15.3
Tertial education, 4 years or less (level 6)	8351	73.8	26.2	8286	73.1	26.9
Tertial education, more than 4 years (level 7-8)	5041	75.9	24.1	5048	74.3	25.7
Other	1764	81.2	18.8	1801	79.0	21.0
<b>Sum</b>	31623			31444		
<b>Age groups</b>						
16-24 years	1268	83.4	16.6	1268	81.5	18.5
25-44 years	16316	79.2	20.8	16071	78.3	21.7
45-66 years	12945	80.5	19.5	12852	80.3	19.7
67 years or older	1094	86.9	13.1	1104	85.4	14.6
Unknown age	0	.	.	0	.	.
<b>Sum</b>	31623			31295		

## Appendix 4: Interview guide

Takke for at de tar seg tid.

Forklare: Vi skriver en masteroppgave om hvordan UiS kan bidra til å øke andelen kvinnelige entreprenører.

Vil bare si ifra på forhånd at noen spørsmål kan virke repetitive, det kan komme litt an på hva og hvor mye du svarer på andre spørsmål. Men dersom du merker de er gjentakende gjerne prøv å utdype om noe du allerede har svart på kommer opp igjen.

Questions	Background:	
1	Alder:	
2	Kjønn:	
3	Studieretning/år på studiet:	
Questions:	Interview guide:	Theory:
4 -4a)	<p>Har du foreldre/familie som er entreprenører i form av å være selvstendig næringsdrivende (enkeltmannsforetak eller organisert som AS).</p> <ul style="list-style-type: none"> <li>• Har det påvirket ditt syn på entreprenørskap?</li> </ul>	<ul style="list-style-type: none"> <li>• Har en teori om at de som har nær familie innen entreprenørskap eller som er selvstendig næringsdrivende ser på det som et alternativ og en mulighet i større grad enn de som ikke har dette.</li> <li>• Subjective norm (TPB)</li> </ul>
5	Hva er dine første tanker/assosiasjoner når du hører ordet entreprenørskap?	<ul style="list-style-type: none"> <li>• Perceived desirability linket med attitude towards the behaviour (EEM &amp; TPB)</li> </ul>
6	Hvilke egenskaper og holdninger tror du det er viktig at en entreprenør har?	<ul style="list-style-type: none"> <li>• Perceived behavioral control (TPB)</li> <li>• First requirement EEM.</li> <li>• Perceived desirability (EEM)</li> <li>• Perceived feasibility (EEM)</li> <li>• The propensity to act (EEM)</li> </ul>



7 -7a)	Har du selv en interesse for entreprenørskap? <ul style="list-style-type: none"> <li>• Hvis ja: hva har vekket din interesse for entreprenørskap?</li> </ul>	<ul style="list-style-type: none"> <li>• TPB</li> <li>• EEM</li> </ul>
8 -8a) -8b)	Har du intensjon om å starte noe eget? Ev. når ser du for deg å gjøre dette? <ul style="list-style-type: none"> <li>• Hva er årsaken til at du har/ lyst til å starte noe eget?</li> <li>• Hva er årsaken til at du ikke har/ lyst til å starte noe eget?</li> </ul>	<ul style="list-style-type: none"> <li>• TPB</li> <li>• EEM</li> </ul> (Da disse brukes til å se på EI)
9 -9a) -9b)	Diskuterer du tanker og intensjon rundt å starte noe eget med f.eks. familie, venner, kjæreste o.l.? <ul style="list-style-type: none"> <li>• Hva er deres respons til dette? (Opplever du at de er støttende eller litt negative?)</li> <li>• Ev hvorfor tror du det ikke er et samtaleemne?</li> </ul>	<ul style="list-style-type: none"> <li>• Subjective norm (TPB)</li> <li>• Culture/Gender</li> </ul>
10	Hva ser du på som fordelene ved å starte noe eget?	<ul style="list-style-type: none"> <li>• Gender</li> <li>• EEM</li> </ul>
11	Hva ser du på som de største utfordringene med å starte noe eget?	<ul style="list-style-type: none"> <li>• Gender</li> </ul>
12 -12a)	Føler du at du besitter de egenskapene og holdningene entreprenørskap krever? Hvorfor/hvorfor ikke? <ul style="list-style-type: none"> <li>• Tror du det er noe UiS kunne gjort for å hjelpe/styrke disse egenskapene?</li> </ul>	<ul style="list-style-type: none"> <li>• TPB</li> <li>• EEM</li> <li>• Gender</li> </ul>

<p>13</p> <p>-13 a)</p> <p>-13 b)</p>	<p>Vet du noe om forskjellen på antall kvinner og menn som driver med entreprenørskap i Norge? /Fortell.</p> <p>Tall viser at 13% av Norges befolkning ØNSKER å starte noe eget, og av disse er 55% menn og 45% kvinner. Men av alle entreprenørene i Norge, så er 70% menn og 30% kvinner.</p> <ul style="list-style-type: none"> <li>• Hvorfor tror du det er så stor forskjell? Kan du se for deg at det er en årsak?</li> <li>• Tror du UiS kan bidra til å minske forskjellen? Ev. hva kunne de gjort?</li> </ul>	<ul style="list-style-type: none"> <li>• Gender</li> <li>• Culture</li> <li>• University</li> </ul>
<p>14</p>	<p>Kjenner du til entreprenørskaps tilbudene (fagene og miljøet) ved UiS? Hvilke?</p>	<ul style="list-style-type: none"> <li>• The role of Universities</li> <li>• EE</li> <li>• curricular &amp; extracurricular</li> <li>• Context</li> </ul>
<p>15</p> <p>-15a)</p> <p>-15b)</p>	<p>Har du hatt noen entreprenørskaps fag?</p> <p>Hvis ja: hvilke, og hvorfor valgte du dem?</p> <p>Hvis nei: hva skal til for at du velger slike fag?</p>	<ul style="list-style-type: none"> <li>• The role of Universities</li> <li>• curricular</li> </ul>
<p>16</p> <p>-16 a i)</p> <p>-16 a ii)</p> <p>-16 b i)</p> <p>-16 b ii)</p>	<p>Er du en del entreprenørskaps miljøet ved UiS?</p> <ul style="list-style-type: none"> <li>• Hvis ja: Hvordan havnet du i dette miljøet/hvorfor valgte du disse fagene</li> <li>• Hvilken nytte ser du at du kan få/ha fått</li> <li>• Hvis nei: Hva er grunnen til at du ikke har tatt del i dette miljøet?</li> <li>• Hva skal til?</li> </ul>	<ul style="list-style-type: none"> <li>• The role of Universities</li> <li>• Curricular</li> <li>• Extracurricular</li> <li>• UBIs</li> </ul>

17	Hva tror du UiS kan gjøre for å øke interessen rundt entreprenørskap? (både faglige og ikke faglige tilbud)	<ul style="list-style-type: none"> <li>• The role of Universities</li> <li>• Students value</li> </ul>
18 -18 a) -18 b)	<p>Er du med i en startup nå? (en du ikke har startet selv)</p> <p>-Hvis ja: hvilken rolle har du?</p> <p>-Hvis nei: kunne du tenke deg å ta del i en start-up?</p>	<ul style="list-style-type: none"> <li>• University</li> <li>• extracurricular</li> </ul>
*19	*Tillegg	

## **Vil du delta i forskningsprosjektet**

### ***Entreprenørskapsøkosystemet tilknyttet UiS og Økningen av Kvinnelig Entreprenørskap***

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å finne ut hvordan økosystemet tilknyttet UiS kan bidra til å øke andelen kvinnelige entreprenører. I dette skrevet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

#### **Formål**

Dette er en Masteroppgave med formål om å finne ut hvordan UiS og dets økosystem kan bidra til en økning i kvinnelige entreprenører ved å øke intensjonen om entreprenørskap (entrepreneurial intention).

Forskningsspørsmålet er som følger, «How can the entrepreneurial ecosystem at the University of Stavanger promote female entrepreneurs by increasing entrepreneurial intentions?»

#### **Hvem er ansvarlig for forskningsprosjektet?**

Universitetet i Stavanger er ansvarlig for prosjektet.

#### **Hvorfor får du spørsmål om å delta?**

Du blir spurt om å delta i dette prosjektet fordi du er student ved Universitetet i Stavanger og:

1. Du har uttrykt/vi har fått inntrykk av at du har en form interesse for entreprenørskap. (Men er ikke aktivt deltagende i «entreprenørskaps miljøet ved Universitetet)
2. Du er aktivt deltagende i «entreprenørskaps miljøet» tilknyttet Universitetet. (Eks. StartUiS eller LevelUp)
3. Du har selv tatt kontakt med oss og vist interesse for forskningsprosjektet.

#### **Hva innebærer det for deg å delta?**

Hvis du velger å delta i prosjektet innebærer det at du deltar på et digitalt intervju, ettersom vi ser det som uforsvarlig å møtes under pandemien. Intervjuet vil ha en varighet på omtrentlig 30-60 minutter. Spørsmålene under intervjuet vil omhandle dine tanker rundt entreprenørskap, fordeler/ulempes ved oppstart av noe eget og din deltakelse i faglige og ikke faglige aktiviteter tilknyttet entreprenørskap ved Universitetet i Stavanger. Dine svar fra intervjuet vil bli notert underveis, i tillegg til at det vil bli gjort lydopptak.

#### **Det er frivillig å delta**

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

### **Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger**

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- Kun studentene som skriver denne Masteroppgaven vil ha tilgang til innsamlet data i sin helhet. Den innsamlede dataen vil dog kunne diskuteres med veileder.
- Du vil bli anonymisert i oppgaven. Navn og kontaktopplysninger vil erstattes med en kode som lagres på egen navneliste adskilt fra øvrige data. Du vil derfor bli referert til som eksempelvis «intervjuobjekt 1». Dersom deler av dine svar i intervjuet gjør det mulig å gjenkjenne deg, vil disse bli sensurert. All data som omhandler deg vil lagres i en kodesikret sky.
- 
- Videre vil svar bli sensurert dersom du kan gjenkjennes basert på innholdet

### **Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?**

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, noe som etter planen er 15. juni. Ved prosjektslutt kommer all data vi har samlet inn til å slettes/destrueres.

-

### **Dine rettigheter**

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke personopplysninger som er registrert om deg, og å få utlevert en kopi av opplysningene,
- å få rettet personopplysninger om deg,
- å få slettet personopplysninger om deg, og
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger.

### **Hva gir oss rett til å behandle personopplysninger om deg?**

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Universitetet i Stavanger har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

### **Hvor kan jeg finne ut mer?**

Hvis du har spørsmål til studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med:

- Studentene som skriver denne Masteroppgaven: Ane Elisabeth Grasmø Haugen og Anja Fintland.
- Universitetet i Stavanger ved Marte Cecilie Wilhelmsen Solheim.

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:

- NSD – Norsk senter for forskningsdata AS på epost ([personverntjenester@nsd.no](mailto:personverntjenester@nsd.no)) eller på telefon: 55 58 21 17.

Med vennlig hilsen

*Ane Elisabeth Grasmø Haugen og Anja Fintland/ Marte Cecilie Wilhelmsen Solheim*  
(Forskere/veileder)

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-----  
Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet *Entreprenørskapsøkosystemet tilknyttet UiS og Økningen av Kvinnelige Entreprenører*, og har fått anledning til å stille spørsmål. Jeg samtykker til:

- .. Å delta i intervju
- .. At det blir gjort lydopptak
- .. Svarene vil bli brukt til å bidra til forskningen (anonymisert)

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

-----  
(Signert av prosjektdeltaker, dato)

## Appendix 6: NSD approval

Behandlingen av personopplysninger er vurdert av NSD. Vurderingen er:

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet den 21.05.2021 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

### DEL PROSJEKTET MED PROSJEKTANSVARLIG

Det er obligatorisk for studenter å dele meldeskjemaet med prosjektansvarlig (veileder). Det gjøres ved å trykke på “Del prosjekt” i meldeskjemaet. Om prosjektansvarlig ikke svarer på invitasjonen innen en uke må han/hun inviteres på nytt.

### TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til 15.06.2021.

### LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake. Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

### PERSONVERNPRINSIPPER

NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om: lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

### DE REGISTRERTES RETTIGHETER

NSD vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18) og dataportabilitet (art. 20). Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

Vi minner også om at dersom personopplysninger rettes, slettes eller begrenses, har behandlingsansvarlig plikt til å underrette mottakere (dvs. andre som har tilgang til opplysningene, her: felles behandlingsansvarlig), jf. art. 19.

### FØLG DIN INSTITUSJONS RETNINGSLINJER

NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32)

Jottacloud er databehandler i prosjektet. NSD legger til grunn at behandlingen oppfyller kravene til bruk av databehandler, jf. art 28 og 29.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.

#### MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: [nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema](https://nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema) Du må vente på svar fra NSD før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Kontaktperson hos NSD: Elizabeth Blomstervik  
Lykke til med prosjektet!