## A Study of Entrepreneurial Intentions among Norwegian students

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#### **Abstract**

The share of young entrepreneurs (between 18 and 34 years old) is rather low in Norway and only constitutes to 9.8% of all entrepreneurs (Alsos et al., 2014). The entrepreneurial intentions among young people are an important predictor of future entrepreneurial behavior. Different theories have been used to evaluate and predict the entrepreneurial intentions of young people. This is done to investigate the entrepreneurial intentions of the population, particularly young people. This raises the research question of the study: What factors influence the entrepreneurial intentions of Norwegian students? Using insights from the theory of planned behavior (Ajzen, 1991), this study attempts to evaluate the entrepreneurial intentions of students. To answer the research question of the study I analyzed data collected with the help of a survey taken by undergraduate students at a Norwegian university using multivariate data analysis. The results of the study showed that females have lower entrepreneurial intentions, rather than males. The study also showed that the attitude that an individual has towards intentions and the subjective norm that he faces when considering self-employment.

#### 1. Introduction

The brain of a human fully develops at 25 years of age (Arain et al., 2013). This is the age when the brain is at its peak point and is the most active, creative, critical in thinking and this is when a person comes up with new great and aspiring ideas which could change the world forever. Young people, who are either still at university or have just finished university have a great option to either work for a company, performing tasks and duties which help maintain the flow of the firm's business operation, or to work for themselves and to create a business where they will insert either part-time or full-time input in order to eventually create return-profit which they can either keep for themselves or use it to further develop their business. However, to create a profitable business, one first has to come up with a business idea that is good enough to make it to the business market and gain a stable profit. Coming up with an idea that is good enough to make a business out of it, is a very challenging task and what's even more challenging, is deciding whether or not one should risk money and effort on an idea, which in the end, may or may not return a profit. At a young age however, when the human brain is still fresh and full of creativity and critical thinking, coming up with this idea is much easier for the person and the quality of the business idea and how successful it might potentially become is very high. Thus, young potential entrepreneurs that come up with such ideas have a much greater probability of being successful in the business market and so, becoming an entrepreneur at a young age is very beneficiary and better for both the business, the entrepreneur in question and even just normal every-day people in general, if the idea is so life-changing that it could improve the world and could fix problems which still have little or no solutions to this day.

Unfortunately, as studies have shown, the fraction of young entrepreneurs among all entrepreneurs is only 9.8% (Alsos et al., 2014). At a young age, people are very creative and think of many different creative and

smart things. Some think about how they can make the world a better place, others think about how they can earn a living for themselves, etc. According to Oxfords' Advanced Learner's Dictionary (Hornby & Cowie, 1995), the definition of an entrepreneur is "a person who makes money by starting or running businesses, especially when this involves taking financial risks". A lot of young people come up with groundbreaking ideas which could change the world forever but are simply too afraid to take the on the risk of evolving their idea into the business market, fearing that their idea would simply not be good enough and that they end up with a negative turn-out, while in reality, such ideas could potentially bring more than profit to both the entrepreneur and the world as a whole.

### 2. Theoretical Background

Young entrepreneurship

Darby (2001) defines the four key characteristics of a successful young entrepreneur to be:

- A sense of integrity with employees, customers and investors treated as partners in the business and treated well.
- The application of common sense to their business whilst bemoaning the fact that common sense in business is not all that common.
- An 'uncommon sense' of what will make a good innovation to a product or service and the resilience and resourcefulness to turn this into a reality.
- A sense of humor apparent from their working environments, their marketing and their personalities.

According to Darby (2001), people under the age of 25 start around 550 businesses per week and this age group is the least successful age-group in business. The main goal of starting a business in the eyes of a young entrepreneur is to earn a living for themselves. A young entrepreneur's main motivation is to challenge themselves by working on their own. Previous research has shown that young entrepreneurs are happier and are more satisfied working for themselves, than young people who are hired by firms (Blanchflower & Oswald, 2009). Thus, most individuals prefer being self-employed and studies have shown that there are quite a lot of young people with good entrepreneurial potential.

# Theory of planned behavior

The theory of planned behavior (TPB) is a theory defined by Ajzen (1991), which intends to explain how people intend to interact with and resolve issues and tasks based on their behavior. According to this theory, intention is defined as "a person's readiness to perform a given behavior." (Ajzen, 1991). Whether the person intends to perform a behavior or not, this is defined by three cognitive antecedents: the individual's attitude and what they think of the behavior (whether it is favorable or unfavorable for them), subjective norms, where the individual captures and reflects on the social opinions of those around him/her (friends and family) on whether or not they should perform the behavior in question and perceived behavioral

control (PBC) which determines or lets the individual determine whether it is easy or difficult for them to perform the task (Fig. 1).

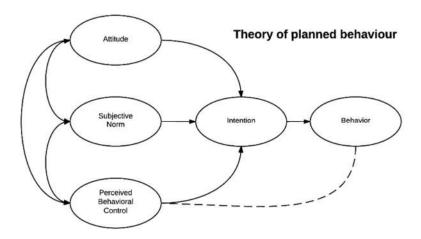


Figure 1: Theory of planned behavior

Of course, the amount of influence that these three individual antecedents place on each individual and behavior varies from case to case. The theory of planned behavior can be applied in many different cases and research in order to evaluate and assess initial hypothesis and predictions regarding the psychological intentions of people in many different areas, including entrepreneurial intentions. The TPB was found to be able to predict intentions with a high degree of accuracy (Ajzen, 1991). For this reason, I will use the TPB to evaluate entrepreneurial intentions among Norwegian students.

Hypothesis 1 (H1): Attitudes toward entrepreneurship are positively and significantly related to entrepreneurial intentions.

*Hypothesis 2 (H2): Subjective norms are positively and significantly related to entrepreneurial intentions.* 

Hypothesis 3 (H3): Perceived behavioral control is positively and significantly related to entrepreneurial intention.

## Previous research on entrepreneurial intentions

Wilson et al. (2007) found that males have higher intentions than females. Fayolle & Gailly (2004) applied the TPB in order to investigate a correlation between entrepreneurial intentions and TPB. They found that there is a strong correlation between entrepreneurial intentions and the TPB's three antecedents. Tkachev & Kolvereid (1996) investigated self-employment intentions among Russian medical and technical university students. They argue that attitude, subjective norm and perceived behavioral control determine employment status choice intentions among Russian students. Kolvereid & Isaksen (2006) found that attitude and subjective norms determine intentions to become self-employed. Kolvereid (1996) came to a conclusion that Norwegian undergraduate students who care for the security, social environment, work load, avoid responsibility, and their career, choose to be employed by an organization, while students who look for economic opportunities, authority, autonomy, challenge, self-realization, and process participation choose to be self-employed. Iakovleva et al. (2011) found that students from developing countries have higher entrepreneurial intentions than students from developed countries. The students from developing

countries showed a higher score on the TPB's three antecedents, than students from developed countries. They found this by surveying 2,225 students from 13 different countries. Krueger et al. (2000) showed strong evidence of support for the TPB model in predicting entrepreneurial intentions. Shirokova et al. (2016) found that intentions are predictors of real entrepreneurial actions in the future. Kautonen et al. (2013) suggest that intention and PBC have a significant impact on entrepreneurial intentions. Engle et al. (2010) found that the TPB is successful in predicting entrepreneurial intentions, however, the results and the significance of each antecedent varies throughout each of the countries, which was foreseen by Ajzen (1991). So, generally speaking, previous research has shown that the TPB model is a very powerful and useful model which can be used efficiently in order to predict entrepreneurial intentions.

#### 3. Method

In order to evaluate and make conclusions regarding the above-mentioned hypotheses, I will use data from a survey, carried out by 108 business students at a Norwegian university. The average age of the respondents was 26.45 years old and 59% of respondents were male.

## Dependent variable

The main question of the survey which was presented to the students was "Have you seriously considered starting your own business?". In relation to this question, the students were presented with the following six statements: "I am ready to do anything to be an entrepreneur," "My professional goal is to become an entrepreneur," "I am determined to create a business venture in the future," "I have very seriously thought about starting a firm," "I have got the intention to start a firm one day," and "I intend to start a firm within five years of graduation" (Liñán and Chen, 2009). The students had to consider each statement and respond to the statements on a scale of 1 to 7, evaluating whether they agree with the statement or not, with 7 being "strongly agree" and 1 being "strongly disagree".

### Independent variable

In the current study, the main independent variable is entrepreneurial intention. I will evaluate the independent variable using the TPB (Ajzen, 1991). Therefore, to measure the independent variable, I used three different measures for the three antecedents; a measure of self-employment attitude, subjective norm and perceived behavioral control.

I measured the student's self-employment attitude and its influence entrepreneurial intentions based on further statement evaluations from the survey (Gundry & Welch, 2001; Kolvereid & Isaksen, 2006). These were: "Being an entrepreneur implies more advantages than disadvantages to me", "A career as an entrepreneur is attractive to me" and "If I had the opportunity and resources, I would love to start a business". Again, respondents evaluated these statements on a seven-point scale.

In order to measure the influence of subjective norm towards the individual entrepreneurial intentions, I used data collected from the following three statements (Kolvereid, 1996): "My closest family members think that I should pursue a career as an entrepreneur", "My closest friends think that I should pursue a career as an entrepreneur" and "People that are important for me think that I should pursue a career as an entrepreneur". respondents evaluated these statements on a seven-point scale. Furthermore, in order to evaluate more precisely whether or not the subjective norm influenced intentions, respondents were asked

to indicate how much they cared about "closest family members", "closest friends" and "people important to you" on a seven-point scale.

In order to investigate the influence of perceived behavioral control on the entrepreneurial intentions of a student, I used data collected from three seven-point scale statement evaluations on the following statements (Ajzen, 2002): "If I wanted to, I could easily become an entrepreneur", "As an entrepreneur I would have sufficient control over my business" and "It is entirely up to me whether or not I become an entrepreneur".

I also tested the variables for correlations (Table 1). The results of correlation analysis show that correlation is not a problem in the study.

**Table 1.** Correlation Matrix (n = 108)

Variable	Mean	SD	1	2	3	4	5	6	VIF
1. Age	26.48	6.38	1.00						1.039
2. Gender	1.45	0.50	0.08	1.00					1.122
3. Parental self- employment	1.56	0.52	0.068	0.064	1.00				1.021
4. Attitude	0.00	1.00	-0.097	0.284**	-0.119	1.00			1.401
5. Subjective norm	0.00	1.00	0.081	-0.048	-0.81	0.39**	1.00		1.216
6. Perceived behavioral control	0.00	1.00	-0.102	-0.234*	-0.068	0.355**	0.194*	1.00	1.184

Notes: VIF = Variance inflation factor; \* p<0.05 (two-tailed); \*\* p<0.01 (two-tailed).

## 4. Results and analysis

In order to analyze the gathered data, I used the IBM SPSS Statistics software. The hierarchical regression analysis was used to analyze the collected data and to examine the relationship between the independent, control and dependent variables.

In Table 2, model 1 ( $R^2$ =0.064, p=<0.01) includes the following control variables: age, gender and parental self-employment. Of all the control variables, gender ( $\beta$ =-0.27, p=<0.01) was the only variable which significantly affected entrepreneurial intentions. This indicates that females have lower entrepreneurial intentions than males.

Hypotheses 1-3 are related to the prediction entrepreneurial intentions and behavior by using the three antecedents of TPB (Ajzen, 1991): the attitude towards entrepreneurship, subjective norms and perceived behavioral control.

Model 2 ( $R^2$ =0.571, p=<0.01) includes controls, independent and dependent variables. The attitude towards entrepreneurship ( $\beta$ =0.62, p=<0.001) and subjective norms ( $\beta$ =0.16, p=<0.05) positively and significantly affect entrepreneurial intentions. Thus, hypotheses 1 and 2 are supported. Contrary to the study expectations, PBC was not significant. Thus, hypotheses 3 is not supported.

**Table 2.** Hierarchical Regression Models (n = 108)

	Model 1 (a)	Model 2 (a)
Control variables		
Age	-0.01	0.03
Gender	-0.27**	-0.07
Parental self-employment	-0.11	-0.03
Independent variables		
Attitude toward the behavior		0.62***
Subjective norm		0.16*
Perceived behavioural control		0.10
$\mathbb{R}^2$	0.09	0.595
Adjusted R <sup>2</sup>	0.064	0.571
$\Delta R^2$	0.595	0.505
F value	3.426	24.740

Notes: a) Standardized beta regression coefficients \* p<0.05; \*\* p<0.01; \*\*\* p<0.001.

#### Conclusion

The number of young entrepreneurs in Norway, as a part of all entrepreneurs is quite low. Young and creative minds have great potential in the self-employment sector, but many decide not to become self-employed due to many reasons, including not believing in themselves and their idea/product, peer pressure and many other reasons. This study aimed to investigate the young entrepreneur's entrepreneurial intentions and their main motivation, using Ajzen's (1991) theory of planned behavior and its three antecedents. The results tell us that a potential entrepreneur's attitude towards their idea and entrepreneurship as a whole and the subjective norms that they experience from friends and family significantly affect their entrepreneurial intention. Surprisingly, perceived behavioral control was not significant in this study. This checks out with Kolvereid & Isaksen's (2006) study about new business start-ups. They found that only attitude and subjective norms significantly affect intentions. Also, Engle et al. (2010) found that the TPB and the level of significance that each of the three antecedent carries, varies from country to country. Hence, this is a somewhat unsurprising result. The results also show that females have lower entrepreneurial intentions, rather than males. This finding is in line with previous research.

The main limitation that this study faced was that the study method and results only focused on one specific country. Future studies should focus on entrepreneurial intentions in multiple other countries, applying the TPB in their study. A comparison of the results from various countries could help develop and identify some sort of pattern in the entrepreneurial intentions of young entrepreneurs and would be helpful to educators and policymakers. This study was cross-sectional. Intentions should be measured at various stages of the education, e.g. during the first year, second year, etc. and after the completion of university studies in order to identify a clearer view of entrepreneurial intentions and to find a psychological pattern in entrepreneurial intentions.

In addition, this study only used the theory of planned behavior to measure entrepreneurial intentions. In the future, researches should apply other theories and methods in order to measure intentions.

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