

The influence of
Perceived Social Norms
on Entrepreneurial
Intentions

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Preface

At the University of Twente solid foundations for entrepreneurship support were laid 25 years ago. Cornerstones are three support programs for Entrepreneurship, executed by Nikos, the knowledge center for entrepreneurship I have worked for during the past seven years. The programs have in common that the numbers of participants have been fairly stable over the years and the numbers of female participants have been low. I started to wonder why. Would the females at the university not know about these programs, or would they feel not encouraged, discouraged even, to participate? Such questions triggered an interest in perceptions about the entrepreneurial climate at the University of Twente and I started from there.

In this study I investigated to what extent perceptions of Social Norm regarding entrepreneurs and entrepreneurship from sources in the private, university and worldwide environments affect entrepreneurial intentions among students and whether this is for all students alike. Over 200 UT students – almost one third of them females- have filled in the online questionnaire that enabled me to do this study, for which I am very grateful.

I am also grateful to my colleagues at Nikos, in particular to Peter van der Sijde, for inspiring me to pursue a master's study, and Ger Bos, my former roommate without whose help the SPSS work would have been an insurmountable burden. I thank my fellow part-time students for their support and friendship. My gratitude also goes out to my supervisors Erwin Seydel and Jeroen Kraaijenbrink for their guidance. Erwin broadened my scope and was a source of ideas and encouragement at times I feared this research would go nowhere. Jeroen on the other hand helped me focus and kept me on track when I feared the research would go out of control. Last but not least I thank my partner, Theo Dirksen. During the four years the Masters of Communication kept me occupied, he never ceased to encourage me to go on and supported me in many ways. He is very proud of me and I am equally proud of him!

The influence of Perceived Social Norm on Entrepreneurial Intentions

Samenvatting

In deze studie is de invloed van sociale norm perceptie van studenten op de intentie om ondernemer te worden onderzocht. Aanleiding daarvoor was enerzijds het gegeven dat de Universiteit Twente al 25 jaar ondernemerschap als loopbaanperspectief propageert en systematisch heeft gewerkt aan een ondernemend organisatieklimaat en anderzijds de uiteenlopende bevindingen over het belang van sociale norm percepties in toonaangevend onderzoek naar ondernemende intenties.

Voornoemd onderzoek bestudeert in de regel de invloed van persoonlijke factoren en percepties van omgevingsfactoren op ondernemende intenties volgens een bepaald model. De verklarende waarde van de persoonlijke factoren is steeds aangetoond. In de onderhavige studie zijn daarom uitsluitend percepties van sociale norm onderzocht. Aan de gebruikelijke bronnen (familie, vrienden) van waaruit sociale norm met betrekking tot ondernemerschap kan worden waargenomen is een aantal toegevoegd in de universiteitsomgeving en de bredere omgeving. Daarnaast worden twee typen sociale norm onderscheiden: de beschrijvende norm, het hebben van een inspirerend voorbeeld, en de voorschrijvende sociale norm - overheersende opvattingen over ondernemers uit relevant geachte bronnen. Mannelijke en vrouwelijke studenten zijn vergeleken en ook is onderscheid gemaakt naar hun achtergrond voor wat betreft het bachelorprogramma waaraan ze deelnemen.

De uitkomsten geven het volgende beeld: Over het algemeen verklaart Sociale Norm Perceptie de variantie in intenties om ondernemer te worden in geringe mate. De beschrijvende norm is krachtiger dan de voorschrijvende norm. Verhoudingsgewijs laten mannelijke studenten zich meer leiden door het eerste type norm en vrouwelijke studenten door het tweede type. Ook het gevolgde onderwijsprogramma, gemeten in termen van vrouwelijk, mannelijk en neutraal imago, lijkt een rol te spelen. De gemiddelde score op ondernemende intenties liep significant uiteen voor mannen en vrouwen.

Daarnaast vielen drie dingen op. Studenten hebben sterk uiteenlopende bronnen, als het gaat om percepties over ondernemerschap. De universiteitsomgeving als inspirerend voorbeeld, studenten uitgezonderd, was geen bron van belang. Een gevolgtrekking zou kunnen zijn dat de slogan “ondernemende universiteit” voor studenten weinig wervingskracht heeft. Ten slotte viel op dat studenten op het moment traditioneel zijn in hun studieprogramma keuze.

Summary

The central theme in this study is the influence of Social Norm Perception on Entrepreneurial Intentions. This choice was motivated by two facts. One is that the University of Twente systematically worked on the creation of an entrepreneurial climate and promoted entrepreneurship as a professional career for the past 25 years and the other were the varying findings on the importance of perceived social norms in leading research on the explanation of entrepreneurial intentions.

Entrepreneurial intentions are often explained by research models that combine personal factors and perceptions of situational factors. In many studies the explanatory power of personal factors on entrepreneurial intentions has been proved. This study therefore concentrates on perceptions of Social Norm, as a proxy for situational factors. Sources of social norm are found in people's private environments, family and friends. Studies on social norm and its communication suggested that sources from broader environments and effects of group influence might be added to these, to have a multi-dimensional operationalisation of social norm. Also a distinction should be made between descriptive social norm – inspiring role models and career examples, and prescriptive social norm – prevailing opinions on entrepreneurs and entrepreneurship.

The results of this study show a significant difference between males and females where entrepreneurial intentions are concerned. In general, perceptions of social norm have little explanatory power for entrepreneurial intentions, considering this, descriptive norms more than prescriptive norms. Also the bachelor major programs students read, in terms of it having a male, female or neutral image, seem to play a role.

Three additional findings are worth mentioning here. The first is that there is much diversity among students as to the sources they perceive social norms from. Second is that the university is not significant as a source of inspirational role models for entrepreneurship, with the exception of fellow students. From this, the conclusion could be drawn that the slogan “the entrepreneurial university” does little to recruit new students. Finally, at the moment students appear to choose study programs that are deemed correct for their sex.

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1 INTRODUCTION

Research on entrepreneurship broadly takes three perspectives on entrepreneurship: a perspective on the entrepreneurial process itself and its characteristics, the economic perspective that focuses on the outcomes of the process, and the psycho-sociological perspective, which analyzes the roles of the entrepreneur and the environmental variables in the process. Studies into the role of the entrepreneur either concentrate purely on the entrepreneurial personality and personal factors, such as risk propensity, self efficacy or locus of control, or acknowledge that the entrepreneurial personality is (also) shaped by situational factors, which include socio-cultural, economic, political, or technological aspects. Today, many researchers view the entrepreneur as embedded in the environment (Van der Veen and Wakkee, 2004)

This study on Entrepreneurial Intentions belongs to the latter research strand and embraces the principle of the embedded entrepreneur. It started from the notion that the environment would then also play a role before someone decides to become an entrepreneur (Brähnbeck, Carsrud, Elfving, Kickull, Krueger, 2006). To be more precise: that perceptions of Social Norms about entrepreneurship would have an influence on entrepreneurial intentions. Yet the contribution of perceived Social Norm in a number of empirical studies to explain entrepreneurial intentions was small or absent (Kolvereid, 1996; Reitan, 1997; Krueger, Reilly & Carsrud, 2000; Autio, Keely, Klofsten, Parker, & Hay, 2001; Kennedy, Drennan, Renfrow & Watson, 2003; Lüthje & Franke, 2003).

This led me to formulate the following research question for this study:

How do Perceived Social Norms affect Entrepreneurial Intentions?

Other research fields provided knowledge on aspects of Social Norms that was applied in this study. In particular, this related to the dual effects of social norms on choices and behaviors (Norman, Clark & Walker, 2005) and the roles of gender (Kolvereid, 1996; Cech, 2005; Catron, 1997; Baughn, Chua, & Neupert, 2006), groups (Postmes, Russel & Lea, 2000; Hogg & Reid, 2006) and communication (Knight Lapinsky & Rimal, 2005) in Social Norm formation and perception.

The aim of this study is to provide insights into the relationship between Perceived Social Norms and Entrepreneurial Intention in a university context. A more specific focus is on the influence of gender in educational and career choices, and educational sex-stereotyping in educational programs, which reflect Social Norms on what is deemed desirable and correct for the sexes (Kolvereid, 1996, Cech, 2005). This report has the following structure. First the theoretical framework introduces the concepts from entrepreneurship research and social norm research that lead to the formation of three hypotheses. Next the research context and design are described. Finally the empirical results are presented, followed by conclusions, discussion, recommendations and suggestions for further research.

2 THEORETICAL BACKGROUND

2.1 Entrepreneurship in a normative context

Becoming an entrepreneur is ‘planned’ behavior, in contrast to ‘stimulus-response’ behavior (Krueger, 1993). Intentions are the best predictors for planned behaviors and capture a person’s motivational factors towards a target behavior or choice (Ajzen, 1991). Ajzen’s Theory of Planned Behavior and Shapero’s Entrepreneurial event explain entrepreneurial intentions by models that combine personal factors and perceptions of Social Norm. In general these models explain on average 40-50% of variance in entrepreneurial intentions, which in their turn explain some 30% of variance in entrepreneurial behavior. The variance explained is predominantly due to the contribution of the personal factors. The contributions of Perceived Social Norms to explain Entrepreneurial Intentions have been inconsistent and vary between no correlations and weak ones.

Some examples. Kolvereid (1996) found significant¹ correlations between Perceived Social Norms and Entrepreneurial Intentions and in addition, between having an entrepreneur as a parent and Perceived Social Norms, in a sample of students from a Norwegian Business School. Reitan (1997) in a study among a large group of Norwegian students and employees, found that the social norms toward entrepreneurship are perceived as more negative than positive, however, having an entrepreneurial role model had a significant positive influence on Perceived Social Norms. Krueger, Reilly & Carsrud, 2000, in a study among senior university business students, found Social Norms were not significant. Autio & al (2001), concluded from a large sample of predominantly technical students in the US and Scandinavia, that predicting Entrepreneurial Intentions had to be robust in different cultures, as Perceived Social Norms –which reflect cultural influences- hardly explained

¹ The term “significant” is used exclusively for statistic significance

Entrepreneurial Intentions. In a partial replication of this study in the UK with business school students Perceived Social Norm was insignificant.

In studies on Entrepreneurial Intentions, Perceived Social Norms often refer to a person's perceptions of how the people closest to him -partner, family, friends, sometimes fellow-students- would want him to choose or behave in a given situation. Normative beliefs are associated with the possibility that important others will (dis)approve (Ajzen 1991) and are felt as pressures felt towards certain choices and behaviors. These are the prescriptive (also called injunctive) norms. Apart from the strength of these kinds of norms, a person's sensitivity and inclination to comply with such norms determines their ultimate effect on choices or behaviors. Descriptive norms, on the other hand, reflect how important others actually choose or behave themselves. Norman et al (2005) demonstrated in a meta study on TPB that neglecting descriptive norms and over-reliance on prescriptive norms might cause overall weak correlations for Social Norms when explaining behavioral intentions. Both prescriptive and descriptive norms promote certain choices and behaviors. People are subject to prescriptive norms for social inclusion and descriptive norms for social guidance (Jones and Gerard, 1967 in Knight Lapinsky et al, 2005).

The examples above predominantly employ prescriptive norms in the family and friends environment (with the exception of the Autio 2001 UK-Scandinavia study). In some cases descriptive norm is added as in indirect variable to moderate prescriptive norm. The explanatory power of Perceived Social Norms might be improved if both norm types are consistently included in a Perceived Social Norms construct to explain Entrepreneurial Intentions.

Next to a distinction between prescriptive and descriptive Perceived Social Norms that Social Norms operationalisation should take into account in my view, other aspects of Social Norms are relevant. To quote Kruger & Kickull (2004) in Brähnbeck et al (2006): "if Social Norms are valid constructs, cultural contexts should be reflected in them, perhaps not as real measures, but at least as a proxy". Within a university environment, perceptions of barriers

and support factors related to entrepreneurship directly affect Entrepreneurial Intentions (Lüthje & Franke, 2003). According to Autio et al (1997) in Lüthje & Franke (2003), a positive image of business founders in a university encourages students' self-employment intentions. An entrepreneurial community in a university (Autio et al, 2001) has some explanatory power for Entrepreneurial Intentions. Numerous studies documented the role of social networks in initiating, and reinforcing behaviors, if one identifies close enough with the referent group (Knight Lapinsky et al, 2005). Indeed, Krueger et al (2000), as a possible explanation for the absence of Social Norms effects on Entrepreneurial Intentions, suggested that social networks' opinions often have a stronger impact than opinions of family and friends. These findings may be supported by a fundamental critique from various researchers on Social Norms operationalisation in the Theory of Planned Behavior, to the extent that normative influences should include group influence (Norman et al 2005). A number of theories, for instance the theory of normative social behavior, self-categorization theory and self-identification theory, include group influence on Social Norms. Crucial is that people differ in their need to identify themselves in terms of group membership(s), that is in terms of the groups they (want to) belong to, the in-groups, or don't (want to) belong to, the out-groups (Hogg et al, 2006). Such groups can be of a biological nature, such as sex or race, but also socio-cultural such as 'students', 'mothers', 'entrepreneurs', or media hypes as 'football wives'. The above suggests two things. The first is to include broader environments than the private circle of family and friends, when studying the effects of Perceived Social Norms on Entrepreneurial Intentions and the second is to take group influence within environments into account.

Perceived Social Norms are formed, transmitted and modified by communication processes (Knight Lapinsky et al, 2005). What people do and say communicates information about norms and is in itself configured by norms (Hogg & Reid, 2006). Perceived Social Norms can be defined as an individual's understanding and representation of the prevailing collective Social Norms. At collective levels formal prescriptive Social Norms is laid down e.g. in government policies and laws and descriptive Social Norms can be observed in the behaviors that (mass) media or group leaders communicate (Knight Lapinsky & Riman,

2005; Hogg & Reid 2006). Perceptions of normative push and pull factors for entrepreneurship, “unemployment” and “having a family”, were found to affect the relation between Perceived Social Norms and Entrepreneurial Intentions. When no entrepreneurial intentions existed, in the situation of perceived unemployment males and females felt normative pressure to start a business. Perceptions of having a family, however, did not, but for different reasons: good mothers stay at home and good fathers get a steady job (Kennedy, Drennan, Renfrow & Watson, 2003). Because collective descriptive Social Norms is seldom formally coded or explicitly stated, interpretations may diverge and norms can be misperceived (Cruz et al 2000 in Knight Lapinski et al, 2005). There is growing evidence that social identity processes influence how people perceive and evaluate communication media (Hogg & Reid 2006). Media framing and priming also play a role. For instance heavy television viewing is positively related with perceived prevalence of professions most often depicted in TV programs (Knight Lapinski & Rimal, 2005). In relation to entrepreneurship there is evidence that female entrepreneurs are underrepresented in scientific literature and popular media (Ahl, 2006; Baker, Aldrich & Liou, 1997; Gilops & Van Haegendoren, 2006). Common perception mistakes relate to the alleged eccentricity or communality of behaviors. The individual feels a minority, when he actually is not (pluralistic ignorance), feels that his behavior is more different from others than it in fact is (false uniqueness), or that others think and act as he does, while in reality they don't (false consensus).

In short, Perceived Social Norms are descriptive and prescriptive, are communicated formally and informally, verbally and non-verbally, interpersonally and through media, and perceived from collective, group and individual sources. If Perceived Social Norm constructs capture these dimensions, their explanatory power on Entrepreneurial Intentions will improve. For each of the dimensions in table 1 on the next page, the hypothesis is

H1 *Perceived Social Norm has a positive relation with Entrepreneurial Intentions.*

Table 1 Perceived Social Norm variables

Source	PSN type	Descriptive	Prescriptive
Family, Friends		Entrepreneurs known Career examples	Opinions on entrepreneurs Compliance
Students, Staff UT news		Entrepreneurs known Career examples	Opinions on entrepreneurs Compliance
Regional, National, International		Entrepreneurs known Career examples	Opinions on entrepreneurs Compliance

2.2 Moderating influences

Two moderating influences on the relation between Perceived Social Norms and Entrepreneurial Intentions are assumed. Entrepreneurship is still stereotyped² as a male domain and associated with masculine traits (Ahl, 2006). For females to express entrepreneurial intentions requires them to consciously oppose social norm. In the context of entrepreneurship females have been the out-group. Hence we know “entrepreneurs” and “female entrepreneurs”. The implication is that males have male role models for social guidance and their sex allows them to be socially included in the in-group of entrepreneurs. Females have to rely on out-group norms for social guidance and their sex will keep them excluded from the in-group, be it perceptually or in reality. This might explain why female entrepreneurs in an internet forum felt a need for self-censorship in their communication, to hide their sex (Lewis, 2006). In a multi country study based on the outcomes of the Global Entrepreneurship Monitor 2004, Baughn, Chua & Neupert (2006) report on the normative context for women’s participation in entrepreneurship and find that specific normative support for female entrepreneurship appears to be a more direct determinant of a country’s proportion of female entrepreneurs, than the general norms about entrepreneurship (Baughn et al, 2006). The second hypothesis is therefore:

H2 *Perceived Social Norm has a stronger effect on entrepreneurial intentions of females than of males*

² Prototypes or stereotypes are sets of readily accessible and situationally applicable attributes (e.g. looks, attitudes or behavior) that clearly define a group and set it apart from others (Hogg & Reid, 2006).

Exploratory research on the motives of female students to choose a technical study program demonstrated that they were very well aware of the dominant social pressures and consciously rejected them. These students depended on self-approval rather than on approval of others which allowed them to dismiss people questioning both their femininity and their engineering skills (Cech, 2005). College education choice was found to be the single best predictor of what occupation the student will enter later in life (Kolvereid, 1996, Pascarelli & Tenzini 991 in Catron, 1997). Cech (2005) assumes that the more socially acceptable choices people have already made in their lives and the closer the fit to the social ideals for their sex, the more socially acceptable their career choices will be. This suggests that socially acceptable career choices are preceded by socially acceptable education choices. Females in male domains -and males in female domains- could be least under the influence of Social Norms, but most consciously aware of its existence. The relation between Perceived Social Norms and Entrepreneurial Intentions might differ for males and females in these domains. This leads to the third hypothesis

H3 *Perceived Social Norm has a stronger effect on entrepreneurial intentions in sex stereo-typed domains than outside these domains.*

The three hypotheses fit together in the following research model:

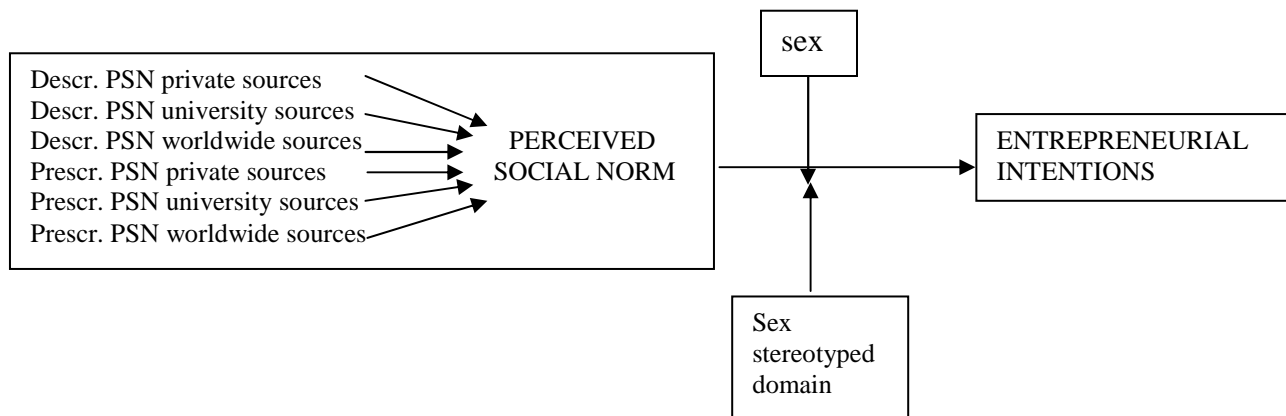


Figure 1: research model

3 RESEARCH METHOD

3.1. Research context

At the University of Twente, founded in 1964 to rejuvenate the region after the collapse of the textile industry, the university's board became aware of the importance of entrepreneurship for economic growth, at the beginning of the 1980ies. A variety of measures and programs have been implemented to foster and promote entrepreneurship as a career option among staff and students. Examples of such measures and programs are the TOP program, a support program for graduated, nascent entrepreneurs (since 1984), an extra curricular course "Becoming an Entrepreneur" (since 1986) and a minor program³ on entrepreneurship (1999). Recently "Kennispark" was founded, an initiative for integrated coordination and promotion of entrepreneurial activities, both soft (programs) and hard (buildings, labs) infrastructure.

It is safe to say, that the University of Twente has systematically worked on the creation of an entrepreneurial environment, both physically and in people's minds, for the past 25 years. The success of these efforts can be measured by the large number of start-up companies (600) which find their origin at the University of Twente. In terms of Social Norm, the University of Twente influenced prevailing standards that university graduates were trained to become scientists, managers or public servants, and university scientists ought to be dedicated to research exclusively. The change promotes entrepreneurial behavior of its students and staff and a positive image for entrepreneurship as a career option.

The University of Twente therefore offered an opportunity to include the university environment as an explicit source of normative influence in this study, next to sources in

³ Minor programs offer students an opportunity to acquire basic knowledge on topics beyond the scopes of their Bachelor programs.

students' micro and macro environments. The University of Twente offers Bachelor and Masters programs in Science, Engineering and Technology and Social Sciences to 7.000 students, 25% of whom are females.

3.2 Entrepreneurial Intention (EI)

The dependent variable, Entrepreneurial Intentions, was a 7-item construct. Two items related to the certainty of starting an(other) enterprise (levels of determination ranging from in favor of - opposed to) and one to the attitude towards starting an(other) enterprise. Three items referred to the timing of starting an(other) enterprise (now – soon – later). The final item referred to career preference (employer – employee). Cronbach's alpha for the scale was 0,92. Terms referring to entrepreneurship (starting a business, owning an enterprise, entrepreneur, employer) were used indiscriminately.

3.3 Perceived Social Norm

The independent variables are Descriptive Perceived Social Norms and Prescriptive Perceived Social Norms. Descriptive Social Norms was operationalised by its sources (absence-presence) and direction (positive-negative). In a series of 8 questions respondents were asked how many persons owning their own company (0, 1, 2, 3, 4, 5, >5), they knew among family and friends, fellow students and university staff and at regional, national, or worldwide, and the extent to which they considered these entrepreneurs as examples for their future careers (very little – very much). In the instructions for answering these questions it was explained that the assumption was that “knowing” regionally, nationally, or internationally would probably not be knowing personally. Perceptions of knowing via media were considered realistic, provided that actual names of entrepreneurs came to mind easily. As an example the name of Bill Gates was given. Prescriptive Social Norms was

operationalised in strength (absence-presence-compliance) and direction (positive-negative) per source: family and friends (micro), important students and university staff, and the university's weekly newsmagazine (meso) and regional, national and international media (macro). In a series of 9 questions, the perceived opinions (very negative – very positive) about entrepreneurs in general and the extent to which respondents perceived they would be complaint to these opinions concerning their future careers, were investigated.

The data collected in the survey were unfit to create constructs per environment for descriptive Perceived Social Norms. Though Cronbach's Alpha's for most constructs were sufficient, the number of cases was not. The relatively low number (76, Male 62, Female 13) of students that knew entrepreneurs among university staff, compared to the other environments, caused one problem. Secondly, it turned out that students perceived Social Norms from different descriptive sources that have little overlap, between and within environments. To specify: in the micro environment 156 students knew entrepreneurs in their family, against 111 among friends, but only 74 in de subset. A similar situation existed in the university environment where 76 students knew entrepreneurs among university staff, 131 among their fellow students, but only 49 in the subset of both environments. Even at worldwide levels, the overlap subset of three environments is very small: 31. For the regional and national or international variables combined, approx 100 respondents overlap, whereas 142 students overlap on national and international. Only 14 students perceived descriptive Perceived Social Norms from the 7 sources together. As a result all analyses were done at item levels.

3.4 Moderating variables

Moderating variables were sex-stereotyped domains and sex. The sex-stereotyped domains were determined as follows. First the 41 Minor study programs offered at the University of Twente in 2006-2007 and 2007-2008 were categorized in terms of their feminine or masculine images. I presumed that students would not know or recall the contents of so

many programs, but that they would associate program titles with masculine (technical, leadership, doing, consulting), feminine (social, cultural, care, communication), or neutral (combinations of masculine & feminine or less outspoken labels such as governance or law) characteristics. The larger number of Minor programs compared to the Bachelor programs, made the Minor programs more suitable for the sex-stereotype domain procedure, in that five clusters could be formed: one female cluster, one male (technical sciences) cluster, one male-neutral (management sciences) cluster, and two neutral clusters. The Minor program on entrepreneurship was in the male-neutral domain. The five clusters were pre-tested by 15 randomly chosen students from the population, who were excluded from the research sample. They rated the clusters on a “typically female” - typically male” 5-point scale. Not applicable was also an answering option. The clusters (see annexes for an overview of the courses in the clusters) could be used in the questionnaire without any alterations. In the questionnaire, the clusters were offered in a randomized sequence, to avoid serial effects. The respondents in this study repeated the procedure and validated the Minor cluster categorization⁴. Males and females did not differ in their ratings of the clusters.

Table 2 validation of the BA educational domains in male-female clusters

Clusters		Students				
		Cluster female	Cluster neutral	Cluster neutral	Cluster male neutral	Cluster male
Males	Mean	2,06	2,85	3,03	3,53	4,58
	N	151	151	151	150	154
Females	Mean	2,03	2,97	2,95	3,56	4,54
	N	67	67	66	66	67
All	Mean	2,05	2,89	3,01	3,54	4,57
	N	218	218	217	216	221

The next step was the formation of sex stereotyped program domains. To this end I assigned the respondents to three domains: sex-conform, sex-opposite and neutral, according to the Bachelor program –their core study program- they read.

⁴ Score ranges were smaller within the male program cluster than within the female program cluster. In the male program cluster, 60% ranked the extreme score ‘typical male’, whereas in the female program cluster the extreme ‘typical female’ scored 17,1% and the next position 61,7%. This suggests that the masculine image of the male program cluster is stronger than the feminine image of the female program cluster.

The sex conform domain included 103 male and female students taking Bachelor programs with typically male and female images respectively, the sex-opposite domain included 14 male and female students taking programs for the other sex and the third cluster included 103 male and female students in all other Bachelor programs. The sex opposite domain had too few cases to be included in further analysis.

3.5 Other variables

Three additional descriptive questions were added: age, year of entrée in the Minor Program and mother tongue.

3.6 Sample characteristics

The hypotheses were tested on a sample of University of Twente students in their third year of their bachelor programs in 2006-7 or 2007-8. These students were homogeneous with respect to their age-group and study history (3 and 4 years) at the University of Twente and heterogeneous for the major disciplines they selected. This sample covered the vast majority of these bachelor students. See table 3.

Table 3 Sample characteristics

Sample characteristics	Total	Males	Females
N	225	155	67
Average age	21,8	21,8	21,9
# BA programs chosen	21	16	17
# Minor programs chosen		40	22
N sex-conform BA Programs	105	76	29
N sex-opposite BA programs	14	6	8
N neutral BA programs	105	73	30

PSN		Sample		Total		Males		Females	
		Mean	N	Mean	N	Mean	N		
Descriptive	Family	2,07	156	2,15	102	1,96	51		
	Friends	2,32	111	2,49	81	1,79	28		
	Students	2,14	131	2,27	90	1,85	39		
	Staff	2,68	76	2,84	62	1,92	13		
	Regional	2,56	111	2,67	73	2,26	35		
	National	2,62	156	2,77	110	2,19	43		
	International	2,56	177	2,71	121	2,19	54		
Prescriptive	Family	3,13	209	3,10	144	3,17	63		
	Friends	3,20	205	3,27	139	3,02	63		
	Students	3,14	189	3,16	132	3,08	55		
	Staff	2,99	157	3,02	110	2,89	44		
	UT news	2,97	119	2,78	79	2,76	38		
	Regional	2,77	151	2,70	98	2,88	51		
	National	2,87	170	2,84	114	2,90	54		
International	2,91	164	2,85	109	2,97	52			
EI		Sample		Total		Males		Females	
		Mean	N	Mean	N	Mean	N		
total		2,87	220	3,06	152	2,44	66		
in sex conform BA domain		2,81	103	2,91	74	2,56	29		
in sex opposite BA domain		2,39	14	3,00	6	1,93	8		
in sex neutral domain		3,00	103	3,21	72	2,46	29		

3.7 Data collection procedure

The instrument was an on-line questionnaire. With the exception of 8 questions asking for numbers of entrepreneurs known, as a measurement for descriptive Social Norms, the questions to establish Perceived Social Norms were to be answered on a 5 point ordinal scale. A variety of terms (starting a business, entrepreneur, owning an enterprise, employer) was used indiscriminately to refer to entrepreneurship. The language in the questionnaire

was Dutch, as Bachelor programs are generally accessible to Dutch speaking students only. The questionnaire was pre tested by 5 people from different backgrounds and ages, 3 females, 2 males. Several adjustments to content and lay-out were made as a result. To help secure a sufficient response rate, the questionnaire was designed to take on average less than 20 minutes to fill out. The students received a link to the digital questionnaire by e-mail, at their student-email addresses. After the initial e-mail, 2 reminders were sent. The questionnaire was open for response during 16 days. The respondents could send in their filled out questionnaires anonymously, which many of them did. The response rate was almost 19%.

4 RESULTS

In Table 4 on page 18, moderate positive correlations are observed between Entrepreneurial Intentions and entrepreneurial career examples. The exception is university staff career examples, which are insignificant. Correlations between Entrepreneurial Intentions and third party opinions on entrepreneurial careers are also found but these are weaker than between Entrepreneurial Intentions and career examples and insignificant for UT news' and regional media's career opinions.

H1 is accepted, with the exception of the three variables mentioned. Perceived Social Norms have positive correlations with Entrepreneurial Intentions.

The next step was to establish to what extent the values for the Perceived Social Norms variables explain the variance in Entrepreneurial Intentions and to what extent differences between males and females can be observed. For all students a regression analysis on each of the individual Perceived Social Norms variables and Entrepreneurial Intentions shows these all have some explanatory power for Entrepreneurial Intentions. In general, descriptive norms have moderate positive correlations⁵ with Entrepreneurial Intentions and individually explain its variance between 19-29%. Prescriptive norms have weak correlations with Entrepreneurial Intentions and individually explain 4-8% of Entrepreneurial Intentions variance. As noted before, for all students correlations for descriptive Social Norm with staff and for descriptive Social Norm with UT news and regional media are insignificant. In the comparison between males and females, the pattern of stronger descriptive than prescriptive Perceived Social Norms correlations is also observed. However, correlations between Entrepreneurial Intentions and descriptive Perceived Social Norms are relatively stronger for males and correlations between Entrepreneurial Intentions and prescriptive Perceived Social Norms for females. Note that for females only, there is a weak correlation between

⁵ Standardized beta coefficients per item are equal to Pearson correlations, so no separate correlation tables are provided.

entrepreneurial career opinions of the UT news, which explain 10% of the variance in Entrepreneurial Intentions, see Table 5 on page 19.

To indicate whether the correlations between Perceived Social Norms and Entrepreneurial Intentions were stronger for females than for males, an F test was performed on the R² scores (see Table 6 on page 19). Items without significant correlations with Entrepreneurial Intentions were excluded. The F test found significant differences between R² scores for males and females on 7 out of 13 items, 6 of which concern scores for prescriptive Perceived Social Norms that are significantly higher for females. In the area of descriptive Perceived Social Norms females also have a higher score than males on staff career examples, whereas males have a higher score on national career examples.

H2 was partly supported. Correlations between Entrepreneurial Intentions and six out of eight prescriptive Perceived Social Norms are stronger for females.

The third hypothesis supposed a stronger Perceived Social Norms effect on Entrepreneurial Intentions for students in sex-stereotyped Bachelor programs than for other students. The “other students” were subdivided in two groups, students following sex-opposite and sex neutral programs. The group of students doing a “sex-opposite” opposite program consisted of 8 female and 6 male respondents, only. This was too small to include them in further research, as on some items there were only one or two respondents. On the next pages the relevant results are shown for the sex-conform and sex opposite groups as a whole and subdivided in males and females.

The influence of Perceived Social Norm on Entrepreneurial Intentions

Table 4: Spearman's Rho Correlations for Perceived Social Norms and Entrepreneurial Intentions

Perceived Social Norms		N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
1. Family	descriptive	156	1,000																		
		111	,469**	1,000																	
		131	,382**	,668**	1,000																
		76	-,012	,277	,412**	1,000															
		111	,341**	,415**	,453**	,390**	1,000														
		156	,220*	,523**	,524**	,328*	,527**	1,000													
		177	,214*	,374**	,532**	,275*	,437**	,737**	1,000												
8. family	prescriptive	209	,394**	,173	,383**	,048	,182	,347**	,283**	1,000											
9. friends		205	,226**	,398**	,343**	,049	,276**	,307**	,249**	,499**	1,000										
10. students		189	,256**	,180	,356**	,226	,378**	,261**	,313**	,439**	,643**	1,000									
11. staff		157	,065	,298**	,295**	,253*	,132	,267**	,293**	,316**	,250**	,494**	1,000								
12. UT news		119	,107	,243	,285*	,226	,113	,076	,185	,185*	,221*	,384**	,389**	1,000							
13. regional media		151	,075	,186	,211*	,080	,108	,087	,217*	,456**	,161	,270**	,401**	,400**	1,000						
14. national media		170	,021	,243*	,204*	,036	,192	,215*	,329**	,388**	,389**	,408**	,385**	,338**	,658**	1,000					
15. international media		164	-,008	,220*	,320**	,018	,221*	,264**	,391**	,377**	,306**	,427**	,468**	,371**	,579**	,778**	1,000				
16. Entrepreneurial Intention		220	,407**	,514**	,448**	,109	,459**	,550**	,505**	,262**	,234**	,261**	,236**	,092	,157	,273**	,237**	1,000			

** significant at the 0.01 level 2-tailed * significant at the 0.05 level 2-tailed

The influence of Perceived Social Norm on Entrepreneurial Intentions

Table 5 regression analysis for Perceived Social Norms and Entrepreneurial Intentions for all students and per sex

Student characteristics PSN		All students		Males		Females	
		Standard Beta coeff.	Adj. R ²	Standard Beta coeff.	Adj. R ²	Standard Beta coeff.	Adj. R ²
Descriptive	Family	,439***	,187	,433***	,180	,488***	,222
	Friends	,538***	,282	,531***	,273	,444*	,165
	Students	,443***	,190	,424***	,170	,378*	,119
	Staff	,088	-,006	-,006	-,017	,251	-,022
	Regional	,469***	,212	,468***	,207	,398*	,133
	National	,541***	,288	,555***	,301	,398**	,137
	International	,503***	,249	,477***	,221	,468***	,204
Prescriptive	family	,247***	,056	,248**	,055	,332**	,095
	friends	,261***	,064	,201*	,033	,287*	,067
	students	,272***	,069	,250**	,055	,321*	,086
	staff	,229***	,046	,181	,024	,313*	,076
	UT news	,099	,001	-,018	-,013	,354*	,100
	regional media	,139	,013	,197	,029	,013	,181
	national media	,284***	,075	,317**	,092	,329*	,090
	international media	,215***	,040	,223*	,041	,283*	,062

*** significant at the 0.001 level 2-tailed. ** significant at the 0.01 level 2-tailed. * significant at the 0.05 level 2-tailed.

Table 6 F ratio test for R² between males and females

Student characteristics PSN		R ²		F-test	
		Males	Females	F ratio	1-tailed P <
Descriptive	Family	,188	,238	1,27 (48,99)	NS
	Friends	,282	,197	1,43 (78,25)	NS
	Students	,180	,143	1,26 (86,36)	NS
	Staff				
	Regional	,219	,158	1,39 (69,33)	NS
	National	,308	,158	1,95 (106,40)	,05
	International	,228	,219	1,04 (117,51)	NS
Prescriptive	family	,061	,110	1,80 (60,140)	,01
	friends	,040	,082	2,05 (60,135)	,001
	students	,063	,103	1,63 (52,128)	,05
	staff	,033	,098	2,97 (41,106)	,001
	UT news	,000324	,125	386 (35,76)	,001
	national media	,101	,108	1,07 (51,110)	NS
	international media	,050	,080	1,60 (49,105)	,05

NS: not significant (P > 0,10) Scores in bold typing are significantly higher.

The third hypothesis supposed a stronger Perceived Social Norms effect on Entrepreneurial Intentions for students in sex-stereotyped Bachelor programs than for other students. The “other students” were subdivided in two groups, students following sex-opposite and sex neutral programs. The group of students doing a “sex-opposite” opposite program consisted of 8 female and 6 male respondents, only. This was too small to include them in further research, as on some items there were only one or two respondents. On the next pages the relevant results are shown for the sex-conform and sex opposite groups as a whole and subdivided in males and females.

In Table 7 on page 23 is shown that in general descriptive Perceived Social Norms more often than prescriptive Perceived Social Norms have significant correlations with Entrepreneurial Intentions. Also in general more and higher significant correlations⁶ occur between Entrepreneurial Intentions and Perceived Social Norms for students in the sex neutral domain than for students in the sex conform domain. Dominant in the sex neutral domain are 6 out of 7 correlations for descriptive Perceived Social Norms. Among students in the sex conform domain none of the prescriptive Perceived Social Norms are significant. Variance explained for individual items ranges from 6 - 22% for descriptive Perceived Social Norms in the sex conform domain. In the sex neutral domain variance explained ranges from 18 - 39 % for descriptive Perceived Social Norms and from 4 -13% for prescriptive Perceived Social Norm.

To indicate whether the correlations between Perceived Social Norms and Entrepreneurial Intentions were stronger in the sex conform domain than in the sex neutral domain, an F test was performed on the R² scores. Perceived Social Norm items without significant correlations with Entrepreneurial Intentions were excluded. The F test showed significantly higher R² scores in the sex neutral domain on 6 out of 10 items, to be precise for family, regional and international career examples and for career opinions at friends, students and national levels, see Table 8 on page 23.

⁶ Standardized beta coefficients are equal to Pearson correlations in regression on individual items, so no separate correlation table is provided.

Finally males and females were compared between the domains. The regression analysis in Table 9 on page 24 shows a pattern for the male students in both domains in which descriptive Perceived Social Norms dominate and are relatively higher in the sex neutral domain.

Weak correlations between Entrepreneurial Intentions and prescriptive social norms were found for both groups, but with the exception of the national level, no sources are shared.

In the sex neutral domain variance explained for individual items ranges from 10 - 40% for descriptive Perceived Social Norms and around 7% for prescriptive Perceived Social Norm. In the sex conform domain variance explained ranges from 11 – 24% for descriptive Perceived Social Norms and around 5 – 6% for descriptive Perceived Social Norms.

To indicate whether the correlations between Perceived Social Norms and Entrepreneurial Intentions were stronger between male students in the sex conform domain or in the sex neutral domain, an F test was performed on the R² scores. Items without significant correlations with Entrepreneurial Intentions were excluded. The F test gave 5 significantly higher R² scores for Perceived Social Norm and Intentions in the sex neutral domain, and 3 in the sex conform domain, see Table 10 on page 24.

In Table 11 on page 25 the results of the regression analysis for female students in both domains are presented. None of the correlations between Perceived Social Norms and Entrepreneurial Intentions for the females in the sex conform domain are significant. In the sex neutral domain a strong correlation is observed between family career examples and entrepreneurial intentions. Moderate correlations are found for international and students career examples and finally for family career opinions. In view of the absence of significant correlations in the sex conform domain, the F-ratio's for the R² scores on the items in the sex neutral domain that have significant correlations, confirm there are significant differences between these domains, see Table 12, page 25. In terms of their contributions to the correlations for Perceived Social Norm and Entrepreneurial Intentions, females in the sex conform cause the correlations in the total domain to be lower than for males only. It concerns the correlations for descriptive norms in the private (family, friends, students) and the worldwide (national, international) environments, and prescriptive norms at family, national and international levels. In the sex neutral domain, however, a reverse situation is found.

Significant correlations between descriptive and prescriptive Perceived Social Norm and Entrepreneurial Intentions in the private (family, friends, students) domains are higher for the whole group than for the male students, which can be attributed to females in the sex neutral domain.

In summary, correlations between Perceived Social Norms and Entrepreneurial Intentions differ between students in the sex conform and sex neutral domains. The stronger correlations are observed in the sex neutral domain. Within the domains differences occur between males and females. In the sex conform domain all significant correlations are higher for the males than for the whole group. Perceived Social Norms about entrepreneurship reinforce males Entrepreneurial Intentions, which partly supports the third hypothesis. In the sex neutral domain most significant correlations are higher for the whole group than for the males. There appears to be a larger gap between males and females in the sex conform domain than in the sex neutral domain, where correlations between Entrepreneurial Intentions and Perceived Social Norms are concerned.

The findings in the sex-stereotyped domains partly support H3.
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Table 7 regression analysis for Perceived Social Norms and Entrepreneurial Intentions for all students per sex stereotyped domain.

Student characteristics		Sex conform domain		Sex neutral domain	
		Standard Beta coeff.	Adj. R ²	Standard Beta coeff.	Adj. R ²
Descriptive	Family	,288*	,066	,527***	,267
	Friends	,495**	,225	,540***	,280
	Students	,418**	,157	,439***	,181
	Staff	,337	,081	,009	-,026
	Regional	,071	-,019	,635***	,393
	National	,472***	,212	,574***	,320
	International	,429***	,174	,542***	,285
	PSN				
Prescriptive	family	,200	,030	,232*	,044
	friends	,013	-,011	,373***	,130
	students	0,96	-,003	,341**	,106
	staff	,169	,016	,191	,021
	UT news	,063	-,014	,043	-,019
	regional media	,049	-,013	,203	,028
	national media	,179	,019	,337**	,103
	international media	,196	,025	,179	,019

*** significant at the 0.001 level 2-tailed. ** significant at the 0.01 level 2-tailed. * significant at the 0.05 level 2-tailed.

Table 8 F ratio test for R² of Perceived Social Norms and Entrepreneurial Intentions for all students per sex stereotyped domain.

Student characteristics per domain		R ²		F-test	
		Sex conform domain	Sex neutral domain	F ratio	1-tailed P <
Descriptive	Family	0,080	0,277	3,46 _(70,69)	,001
	Friends	0,245	0,292	1,19 _(57,37)	NS
	Students	0,175	0,192	1,10 _(68,48)	NS
	Staff				
	Regional	0,005	0,404	81 _(57,42)	,001
	National	0,222	0,329	1,48 _(72,71)	NS
	International	0,184	0,294	1,60 _(75,82)	,05
	PSN				
Prescriptive	family	0,040	0,054	1,35 _(95,93)	NS
	friends	0,000169	0,139	822 _(93,91)	,001
	students	0,009	0,116	13 _(84,83)	,001
	staff				
	UT news				
	regional media				
	national media	0,032	0,114	3,56 _(79,74)	,001
	international media				

NS: not significant (P > 0,10) Scores in bold typing are significantly higher.

Table 9 regression analysis for Perceived Social Norms and Entrepreneurial Intentions for male students per sex stereotyped domain.

Student characteristics MALES		Sex conform domain		Sex Neutral domain	
		Standard Beta coeff.	Adj. R ²	Standard Beta coeff.	Adj. R ²
PSN					
Descriptive	Family	,357**	,110	,424**	,180
	Friends	,513**	,237	,536***	,271
	Students	,514**	,243	,357*	,109
	Staff	,331	,072	,025	-,237
	Regional	,071	-,035	,640***	,395
	National	,483***	,218	,593***	,339
	International	,458***	,196	,490***	,226
	Prescriptive	family	,259*	,053	,214
friends		,006	-,016	,293*	,071
students		,138	,003	,303*	,077
staff		,156	,007	,218	,025
UT news		,034	-,024	-,097	-,024
regional media		,193	,015	,241	,037
national media		,288*	,065	,346**	,103
international media		,277*	,058	,200	,020

*** significant at the 0.001 level 2-tailed.

** significant at the 0.01 level 2-tailed.

* significant at the 0.05 level 2-tailed.

Table 10 F ratio test for R² for males between sex-stereotyped domains

Student characteristics MALES		R ²		F-test	
		Sex conform domain	Sex neutral domain	F value	1-tailed P <
PSN					
Descriptive	Family	0,127	0,180	1,42 _(42,50)	NS
	Friends	0,237	0,287	1,21 _(44,28)	NS
	Students	0,264	0,129	2,05 _(35,46)	,05
	Staff				
	Regional	0,005	0,410	82 _(39,25)	,001
	National	0,218	0,352	1,61 _(50,50)	,05
	International	0,210	0,240	1,14 _(52,57)	NS
	Prescriptive	family	0,067	0,046	1,46 _(66,66)
friends		0,040	0,086	2,15 _(63,64)	,05
students		0,019	0,092	4,84 _(61,59)	,001
staff					
UT news					
Regional media					
national media		0,083	0,120	1,45 _(53,50)	,10
international media		0,077	0,040	1,93 _(49,48)	,05

NS: not significant (P > 0,10) Scores in bold typing are significantly higher.

Table 11 regression analysis for Perceived Social Norms and Entrepreneurial Intentions for female students per sex stereotyped domain.

Student characteristics FEMALES		Sex conform domain		Sex Neutral domain	
		Standard Beta coeff.	Adj. R ²	Standard Beta coeff.	Adj. R ²
PSN					
Descriptive	Family	1,28	-,041	,687***	,449
	Friends	,436	,074	,535	,215
	Students	,157	-,064	,454*	,164
	Staff	,887	,575	,461	,081
	Regional	,055	-,063	,553*	,256
	National	,351	,077	,435	,142
	International	,283	,040	,534**	,250
	Prescriptive	family	,145	-,018	,372*
friends		,081	-,033	,316	,066
students		,114	-,032	,348	,077
staff		,161	-,028	,184	-,026
UT news		,411	,110	,254	,002
regional media		-,064	-,046	,284	,039
national media		,140	-,025	,349	,082
international media		,135	-,027	,260	-,023

*** significant at the 0.001 level 2-tailed.

** significant at the 0.01 level 2-tailed.

* significant at the 0.05 level 2-tailed.

Table 12 F ratio test for R² for Perceived Social Norms and Entrepreneurial Intentions for female students per sex stereotyped domain.

Student characteristics FEMALES per domain		R ²		F-test	
		Sex conform programs	Neutral programs	F value	1-tailed P <
PSN					
Descriptive	Family	,017	,471	28, (24,17)	,001
	Friends				
	Students	,025	,206	8,24 (19,11)	,001
	Staff				
	Regional	,003	,307	102 (14,15)	,001
	National				
	International	,080	,286	3,58 (20,23)	,01
	Prescriptive	family	,021	,138	6,57 (26,25)
friends					
students					
staff					
UT news					
regional media					
national media					
international media					

NS: not significant (P > 0,10) Scores in bold typing are significantly higher.

5 CONCLUSIONS & DISCUSSION

This study was conducted to explain the relation between Perceived Social Norms and Entrepreneurial Intentions. Basic reasons for this topic were inconsistencies found in the body of research that explains Entrepreneurial Intentions from personal factors and perceptions of Social Norms as a proxy of environmental factors. The principle of the “embedded entrepreneur” (Van der Veen & Wakkee, 2004) led to assumption of embedded entrepreneurial intentions, a principle that was also suggested by Brähnbeck & al (2006). Also leading were the notions that Social Norm is under the influence of socio-cultural changes and thus not static, so that its measures should try to include this. The leading question was: how does Perceived Social Norm affect Entrepreneurial Intentions?, Potential sources of inspiring career examples (descriptive Perceived Social Norms) and relevant opinions on an entrepreneurial career (prescriptive) in the private, university and worldwide environment were used to study this question. Sources from university and worldwide background offer possibilities to change perceptions where entrepreneurship is concerned, whereas sources in the private environment do not.

The mean score on Entrepreneurial Intentions was 2,87 (on a 1-5 scale). The fact that a career decision is not yet imminent –although some students nowadays decide to leave the university after their bachelors degree and others already start a business before graduation- may explain the student’s rather small interest in an entrepreneurial career at this stage (Kolvereid, 1996). Entrepreneurial Intentions for males and females were 3,06 and 2.44 respectively, which is a significant difference ($t = 4803$, $df 216$, $1-t P < ,000$). Between males and females in the sex stereotyped domains these figures are also significantly different:

Sex conform domain: males 2,91 – females 2,56 ($t = 1,970$, $df 101$, $1-t p < ,026$).

Sex neutral domain: males 3,21 – females 2,46 ($t=3.693$, $df 99$, $1-t p < ,000$)

Sex opposite domain: males 3,00 – females 1,93 ($t=2,656$, $df 12$, $1-t p < ,012$)

The first hypothesis claimed that Perceived Social Norms have an influence on Entrepreneurial Intentions. This hypothesis was supported for 12 out of 15 variables. Descriptive Perceived Social Norms have in general moderate positive correlations with Entrepreneurial Intentions whereas prescriptive Perceived Social Norms have weak positive correlations. If we compare between all students, the positive correlations in the descriptive Perceived Social Norms area can be attributed first to students in the sex neutral domain and second to the students in the sex conform domain. Prescriptive Perceived Social Norm correlations are not found in the sex conform domain and on four items –three in the private environment and one in the worldwide environment- in the sex neutral domain. As in the all students group correlations between prescriptive Perceived Social Norms and Entrepreneurial Intentions are observed on six items, this suggests that the group of 14 students in the sex opposite domain, that was excluded from the between domains analysis, have influence here.

The second hypothesis claimed that Perceived Social Norms would have a stronger effect on the entrepreneurial intentions of females than of males. This hypothesis was partly supported. Correlations between Entrepreneurial Intentions and six out eight prescriptive Perceived Social Norms are stronger for females. In the descriptive perceived Social Norms area, no significant differences were found between male and female students, with the exception of national career examples, which have a stronger correlation with Entrepreneurial Intentions for males than for females.

The third hypothesis stipulated a stronger effect of Social Norms in sex stereotyped domains. This hypothesis was partly supported. For males and females together, in general the descriptive Perceived Social Norms more often correlate with Entrepreneurial Intentions than the prescriptive Perceived Social Norms. Correlations for three descriptive and three prescriptive Perceived Social Norms with Entrepreneurial Intentions were stronger in the sex neutral domain than in the sex conform domain. (It should be noted that in the sex conform domain no significant correlations were found at all between prescriptive norms and Entrepreneurial Intentions.) However between males and females in the respective domains, it was noted that the significant correlations between Entrepreneurial Intentions and Perceived Social Norms were higher for males than for the whole group in the sex conform domain,

whereas this was not the case in the sex neutral domain. This implies that social norms have different effects on males and females within the sex-conform and sex neutral domains.

Discussion

It appeared that students perceive Social Norms from various, not overlapping, sources. This is consistent with literature in that Social Norm is a complex matter, about the communication of which relatively little is known (Hogg & Reid, 2006, Knight Lapinski & Rimal, 2005).

Analysis of students' networks might shed more light on this. The family and friends environment yet proved to be a source of Perceived Social Norms for all students. This reflects the correctness of its use as a Perceived Social Norms measure in many studies on Entrepreneurial Intentions and fits with literature on normative influence of peer groups (Catron, 1997). Students and friends may be considered alike as peers, from the perspective that they probably have their age group in common, although the duration of the influence will probably differ, as it may be assumed that the students have a shorter shared history with fellow students, than with their friends. Yet peer influence is also closely related to contextually bound social identification and social interaction processes (Hogg & Reid, 2006). It is very likely that a university environment offers such a context.

Other than by its students, the university environment was no source of Perceived Social Norms for Entrepreneurial Intentions. This may suggest that the concept of the entrepreneurial university needs time to mature and rather exists in the minds of those stakeholders that in general have longer –and possibly stronger- associations with the university than the average student has. A student's stay at a university could be simply too short to substantially change perceptions in favour of entrepreneurship. Duration of normative influence and people's age have been identified as factors affecting its impact (Knight Lapinski & Rimal, 2005). If after three to four years relatively so few students (20% of females and 42% of males in the sample) know an entrepreneur at the university, one may wonder to what extent the slogan "the entrepreneurial university" has added value to attract large numbers of students in the first place. This might suggest giving letting go of the concept of the entrepreneurial university in promotion campaigns aimed at attracting students to the educational programs. This concept

may yet be attractive to present and future university staff, who have a distinctly different relationship with a university compared to students.

Two limitations should be mentioned. The operationalisation of the macro environment is a weakness in the study. Strong correlations are found between national and international levels, concerning entrepreneurial career examples, and between all three mediated sources on career opinions. This could suggest that these sources, as “mediated environment”, can be clearly set apart as from the other sources. However, it may also point at a lack of discrimination between these levels for their normative influence on Entrepreneurial Intentions. Where descriptive Perceived Social Norms are concerned, students could combine knowing personally and knowing via media. Their perceptions of “knowing” were decisive, students were instructed as such. It may be assumed that entrepreneurs from family, friends, students and staff environments will be known first of all personally and because of this, additional media exposure will not really change the students’ perceptions of these entrepreneurs. Regional career examples are in the transition area between knowing personally and via media. At national and worldwide levels, knowing entrepreneurs will almost undoubtedly be mediated and mediated only. It could be that a combination of personal knowledge and mediated knowledge increases the attractiveness of career examples with a “glamour factor” and causes perhaps perception inaccuracy. A further study might explicitly make a distinction between knowing personally and knowing via media or both. For a university, facilitating personal contacts between –well known- entrepreneurs from the worldwide environment and students might seem a good strategy to promote Entrepreneurial Intentions among students.

For the prescriptive sources regional, national and international media, the decision on boundaries between them was made on grounds of their distributive capacities. Yet regional newspapers report on international issues and world-wide accessible internet pages give access to local information. It may be assumed that the students will have found it difficult to distinguish between these levels. Some will have used distribution, others content as a criterion, or a mixture of both. Perception includes making such choices (subconsciously) and students in the case of prescriptive norms did not receive an instruction. On the other hand

they may not have given this matter a great deal of thought as high correlations could also suggest they treated these sources rather indifferently. A suggestion for further study comprises the relation between Perceived Social Norms and Entrepreneurial Intentions, keeping a medium as a constant and varying on aspects of its use and content. It is my personal belief that the role of media as sources of Perceived Social Norm in general will only increase. Also, by its nature, the worldwide mediated environment seems the environment to include as a source of social norms that allows for comparisons between student samples from different nationalities.

Findings for hypothesis three underline that Perceived Social Norm is a complex construct. In this respect it should be noted that the questionnaire did not include personal factors related to Entrepreneurial Intentions and was dedicated to Perceived Social Norms, as the personal factors have proven their significance to explain variances in Entrepreneurial Intentions in many studies. Clearly, personal factors should be included in a study on Entrepreneurial Intentions if the aim is to increase variance explained on the basis of a full model. Finally I would like to put forward the suggestion of Cech (2005) that students in their own sex domain are more under the influence and less conscious of Social Norm. This is impossible to verify as findings in this study are based on self-reported questionnaires.

Literature

- Ahl, H. (2006), Why research on women entrepreneurs needs new directions, *Entrepreneurship Theory and Practice*, September, 595-621.
- Ajzen, I. (1991) The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I., (2006 revision) Constructing a TpB questionnaire, conceptual and methodological considerations.
- Autio, E., Keeley, R.H., Klofsten, M., Parker, G.G.C., & Hay, M. (2001) Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2 (2), pp. 145-160.
- Baker Ted, Aldrich Howard E., and Liou Nina (1997), Invisible Entrepreneurs: The Neglect of Women Business Owners by Mass Media and Scholarly Journals in the USA, *Entrepreneurship and Regional Development*, 9 (3), July-September, pp. 221-238.
- Baughn, C.C., Chua, B., Neupert, K.E. (2006) The normative Context for Women's Participation in Entrepreneurship: a Multicountry Study. *Entrepreneurship Theory and Practice*, September, pp. 687-708.
- Brähnbeck Malin, Carsrud Alan, Elfving Jennie, Kickull Jill, Krueger Norris (2006) Why replicate entrepreneurial intentionality studies? Prospects, Perils and Academic Reality - *unpublished*
- Catron, Gail S (1997) Factors that Influence a Woman's choice to Remain in or to Leave a Male-dominated Major. Dissertation for the degree of Doctor of Philosophy in Education, pp 17-29.
- Cech, Erin A. Understanding the Gender Schema of Female Engineering Students: A Balanced Sex-type and an ideal of Autonomy, *Proceedings of the 2005 WEPAN/NAMEPA Joint conference*, copyright 2005 WEPAN/NAMEPA
- Frazier, B.J. & Niehm, L.S. Predicting the Entrepreneurial Intentions of Non-Business Majors: a preliminary Investigation, sbaer.uca.edu/research/usasbe/2006/pdf/files/papers/cases/028.pdf
- Gilops, Isle & Van Haegendoren, Mieke, 2006. SEIN. Beeld van de vrouwelijke ondernemer in de media. Ref.: DP markant-CEZOV, Benl 04/EQ/4.H/005 (Vlaanderen)
- Hogg, M.A. & Reid, S.A. (2006) Social Identity, Self-Categorization, and the Communication of Group Norms, *Communication Theory*, 16, pp. 7-30.

- Kennedy, Jessica, Drennan, Judy, Renfrow Patty & Watson, Bernadette (2003) Situational factors and entrepreneurial intentions. Paper for the Small Enterprise Association of Australia and New Zealand 16th Annual Conference, pp 1-12.
- Kolvereid, Lars, 1996 Organizational Employment versus Self-Employment: Reasons for Career Choice Intentions, *Entrepreneurship Theory & Practice*, spring, pp. 23-30.
- Knight Lapinsky, Maria & Rimal, Rajiv N. (2005) An explication of Social Norms, *Communication Theory*, 15-2, pp. 127-147.
- Krueger, N.F. (1993) The Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility and Desirability. *Entrepreneurship Theory and Practice*, fall, pp. 5-21.
- Krueger, N.F., Reilly, M.D., Carsrud, A.L. (2000) Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, pp. 411-432.
- Lewis, P. (2006) The Quest for Invisibility: female entrepreneurs and the masculine norm of entrepreneurship. *Gender, work and Organization*, 13(5), pp. 453-469.
- Lüthje, C. & Franke, N. (2003) The “making” of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D management*, 33, 2, pp.
- Norman, Paul, Clark, Tom & Walker, Gary (2005) The Theory of Planned Behavior, Descriptive Norms, and the Moderating Role of Group Identification. *Journal of Applied Social Psychology*, 35, 5, pp. 1008-1029
- Postmes, Russel & Lea (2000) The Formation of Group Norms in Computer-Mediated Communication. *Human Communication Research*, 26, 3, pp. 341-371
- Reitan, Bjorn (1997) Where do we learn that entrepreneurship is feasible, desirable, and or profitable? *Paper presented to the ICSB World Conference*.
- Veen, M. van der, Wakkee, I. (2004) Understanding the Entrepreneurial Process. *Arpent Annual Review of Progress Research: volume 2, 2002-2003* pp 114-152

Annexes

overview of bachelor and minor programs selected

Table 1

		Bachelor program selection			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Advanced Technology	8	3,5	3,6	3,6
	Bedrijfsinformatietechnologie	5	2,2	2,2	5,8
	Bedrijfskunde	18	8,0	8,0	13,8
	Bestuurskunde	7	3,1	3,1	16,9
	Biomedische Technologie	1	,4	,4	17,3
	Chemische Technologie	10	4,4	4,4	21,8
	Civiele Techniek	16	7,1	7,1	28,9
	Educational Design, Management en Media	8	3,5	3,6	32,4
	Elektrotechniek	8	3,5	3,6	36,0
	European Studies	2	,9	,9	36,9
	Gezondheidswetenschappen	5	2,2	2,2	39,1
	Industrieel Ontwerpen	19	8,4	8,4	47,6
	Informatica	17	7,5	7,6	55,1
	Psychologie	14	6,2	6,2	61,3
	Technische Bedrijfskunde	26	11,5	11,6	72,9
	Technische Geneeskunde	1	,4	,4	73,3
	Technische natuurkunde	11	4,9	4,9	78,2
	Telematica	3	1,3	1,3	79,6
	Toegepaste Communicatiewetenschap	15	6,6	6,7	86,2
	Toegepaste Wiskunde	10	4,4	4,4	90,7
	Werktuigbouwkunde	21	9,3	9,3	100,0
	Total	225	99,6	100,0	
Missing	-- Vul hier je antwoord in --	1	,4		
Total		226	100,0		

The influence of Perceived Social Norm on Entrepreneurial Intentions

Table 2

		Minor program selection			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bedrijfskunde / technische BK	18	8,0	8,0	8,0
	Bestuurskunde	1	,4	,4	8,4
	Biomedische Technologie	5	2,2	2,2	10,7
	Civiele Techniek	2	,9	,9	11,6
	Cultural Literacy	1	,4	,4	12,0
	Economie, Bedrijf & Beleid	3	1,3	1,3	13,3
	Electrotechniek	2	,9	,9	14,2
	Financial Engineering	5	2,2	2,2	16,4
	Futures: Imagining tomorrow's World	8	3,5	3,6	20,0
	Geo Data Processing & Spatial Information	4	1,8	1,8	21,8
	History	2	,9	,9	22,7
	Human Factors & Veiligheid	2	,9	,9	23,6
	Industrieel Ontwerpen	1	,4	,4	24,0
	Imaging & Computer Vision	3	1,3	1,3	25,3
	Internationaal Management	7	3,1	3,1	28,4
	International Exploration	7	3,1	3,1	31,6
	Kennisoverdracht in Bedrijfs- & Onderwijssituaties	10	4,4	4,4	36,0
	Krijgswetenschappen	6	2,7	2,7	38,7
	Kunst, Media & Technologie	4	1,8	1,8	40,4
	Luchtvaarttechniek	10	4,4	4,4	44,9
	Maatschappelijke Veiligheid	13	5,8	5,8	50,7
	Management van Innovatie	3	1,3	1,3	52,0
	Medische & Sportfysiologie	8	3,5	3,6	55,6
	Multidisciplinaire Consultancy	5	2,2	2,2	57,8
	Music	7	3,1	3,1	60,9
	Nanotechnologie	1	,4	,4	61,3
	Ondernemerschap (Entrepreneurship)	8	3,5	3,6	64,9
	Origins	10	4,4	4,4	69,3
	Productie & Logistiek Management	4	1,8	1,8	71,1
	Professionele Communicatie	3	1,3	1,3	72,4
	Recht in Maatschappij & Bedrijf	14	6,2	6,2	78,7
	Psychologie	16	7,1	7,1	85,8
	Sportfysica	3	1,3	1,3	87,1
	Sustainable Development in a North-South Perspecti	6	2,7	2,7	89,8
	Technische Natuurkunde	3	1,3	1,3	91,1
	Toegepaste Wiskunde	3	1,3	1,3	92,4
	Wereldbeschouwing in een technologische Cultuur	4	1,8	1,8	94,2
	Werktuigbouwkunde	2	,9	,9	95,1
	Wijsbegeerte	8	3,5	3,6	98,7
	VRIJE MINOR	1	,4	,4	99,1
	OVERIGE MINOR	2	,9	,9	100,0
	Total	225	99,6	100,0	
Missing	-- Vul hier je antwoord in --	1	,4		
Total		226	100,0		

Clusters of minor programs

Cluster feminin

Cultural Literacy	Societal Safety
European Studies	Professional Communication
History	Psychology
Human Factors & Safety	

Cluster neutral

Futures: Imagining Tomorrow's World	Sportfysics
International Exploration	Sustainable Development in a North-South Perspective
Music	Wereldbeschouwing in een technologische cultuur
Origins	Philosophy

Cluster neutral

Public Administration	Knowledge transfer in a business & education context
Biomedical Technology	Art, Media & Technology
Imaging & Computer Vision	Medical & Sportfysiologi
Industrial Design	Civil & Business Law

Cluster male-neutral

Management & Industrial Engineering	Management of Innovation
Economy, Business & Mngement	Multidisciplinary Consultancy
Financial Engineering	Entrepreneurship
International Management	Production- & Logistics Management

Cluster masculin

Civil Engineering	Nano technology
Electrical Engineering	Applied Physics
Geo Data Processing & Spatial Information	Applied Mathematics
Warfare sciences	Construction sciences
Aerospace technology	

Clusters of bachelor programs

Cluster feminine

Communication Science	Health Sciences
European Studies	Psychology

Cluster neutral

Biomedical technology	Information sciences
Business Information technology	Management
Educational Design, Management and Media	Technical Health Science
Governance	Telematics
Industrial Design	

Cluster masculin

Advanced Technology	Civil Engineering
Applied Mathematics	Construction Sciences
Applied Physics	Electrical Engineering
Chemical Engineering	Management & Industrial Science

Questionnaire

In het kader van mijn afstuderen in Communication Sciences vraag ik je medewerking aan mijn onderzoek. Ik onderzoek hoe UT studenten in aanraking komen met ondernemers en ondernemerschap. De onderzoekspopulatie bestaat uit gevorderde studenten (Bachelor 3, Masters). Het onderzoek bestaat uit 24 vragen. De beantwoording ervan neemt ca 20 minuten in beslag. Als je belangstelling hebt voor de uitkomsten, vul dan aan het eind van de vragenlijst je e-mail adres in.

Ik dank je bij voorbaat heel hartelijk voor je medewerking.

Privacy

Jouw deelname aan dit onderzoek is anoniem

1 Persoonlijke informatie

Geslacht M / V

Bachelor opleiding

Nationaliteit:

Ik volg(de) een Minor programma in 2006-2007 2007-2008

2 Welke minorprogramma heb je gekozen? Zet een Kruis achter de betreffende minor

3 Kun je aangeven in hoeverre de volgende vijf clusters van minor programma's, beoordeeld op de titels, typisch vrouwelijk of mannelijk zijn? Kruis steeds de best passende positie aan.

Cluster 1

Futures: Imagining Tomorrow's World	Sportfysica
International Exploration	Sustainable Development in a North-South Perspective
Music	Wereldbeschouwing in een technologische cultuur
Origins	Wijsbegeerte

Cluster 1 vind ik typisch vrouwelijk typisch mannelijk NVT

Cluster 2

Bestuurskunde	Kennisoverdracht in Bedrijfs- & Onderwijsituaties
Biomedische Technologie	Kunst, Media & Technologie
Imaging & Computer Vision	Medische & Sportfysiologie
Industrieel Ontwerpen	Recht in Maatschappij & Bedrijf

Cluster 2 vind ik typisch vrouwelijk typisch mannelijk NVT

Cluster 3

Civiele Techniek	Nanotechnologie
Electrotechniek	Technische Natuurkunde
Geo Data Processing & Spatial Information	Toegepaste Wiskunde
Krijgswetenschappen	Werktuigbouwkunde
Luchtvaarttechniek	

Cluster 3 vind ik typisch vrouwelijk typisch mannelijk NVT

Cluster 4

Cultural Literacy	Maatschappelijke Veiligheid
European Studies	Professionele Communicatie
History	Psychologie
Human Factors & Veiligheid	

Cluster 4 vind ik typisch vrouwelijk typisch mannelijk NVT

Cluster 5

Bedrijfskunde / Technische Bedrijfskunde	Management van Innovatie
Economie, Bedrijf & Beleid	Multidisciplinaire Consultancy
Financial Engineering	Ondernemerschap(Entrepreneurship)
Internationaal Management	Productie- & Logistiek Management

Cluster 5 vind ik typisch vrouwelijk typisch mannelijk NVT

Nu volgen 8 vragen over personen met een eigen bedrijf. Kruis steeds de best passende positie aan of kies NVT

Toelichting: Het is de bedoeling dat je personen met een eigen bedrijf die jij kent één keer, in de voor jou meest naaste omgeving, meetelt. Voorbeeld: als je vader een regionaal bekende ondernemer is, dan telt hij mee bij ondernemers in je familiekring, niet bij regionale ondernemers. Als je een schoolvriend hebt die ondernemer is, maar ook op de UT studeert, dan telt hij bij je vrienden mee.

Als in een vraag begrippen voorkomen, die geen zeer precies omschreven betekenis hebben, ga dan altijd uit van wat jij er persoonlijk onder verstaat. Voorbeeld: sommigen zullen tot hun familiekring de kinderen van de nieuwe partner van hun moeder rekenen, anderen doen dat niet.

- 4 a Heb jij op dit moment een vriend(in) met een eigen bedrijf? Nee Ja
 Zo ja
- 4 b Hoeveel werknemers telt het (grootste) bedrijf?
 0 1 2 – 10 11 – 50 51 – 100 > 101
- 5 a Hoeveel personen in *jouw familiekring* hebben een eigen bedrijf?
 0 1 2 3 4 5 > 5 NVT
- 5 b Hoeveel van die ondernemers zijn vrouw?
 0 1 2 3 4 5 > 5 NVT
- 5 c Hoeveel werknemers telt het grootste bedrijf?
 0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 5 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
 zeer weinig zeer veel NVT
- 6 a Hoeveel personen in *jouw vriendenkring* hebben een eigen bedrijf?
 0 1 2 3 4 5 > 5 NVT
- 6 b Hoeveel van die ondernemers zijn vrouw?
 0 1 2 3 4 5 > 5 NVT
- 6 c Hoeveel werknemers telt het grootste bedrijf?
 0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 6 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
 zeer weinig zeer veel NVT
- 7 a Hoeveel *studenten* met een eigen bedrijf ken je van naam?
 0 1 2 3 4 5 > 5 NVT
- 7 b Hoeveel van die ondernemers zijn vrouw?
 0 1 2 3 4 5 > 5 NVT
- 7 c Hoeveel werknemers telt het grootste bedrijf?
 0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 7 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
 zeer weinig zeer veel NVT
- 8 a Hoeveel *UT docenten of medewerkers* met een eigen bedrijf ken je van naam?
 0 1 2 3 4 5 > 5 NVT
- 8 b Hoeveel van die ondernemers zijn vrouw?
 0 1 2 3 4 5 > 5 NVT
- 8 c Hoeveel werknemers telt het grootste bedrijf?
 0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 8 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
 zeer weinig zeer veel NVT

- 9 a Hoeveel personen in de *regio Twente* met een eigen bedrijf ken je van naam?
0 1 2 3 4 5 > 5 NVT
- 9 b Hoeveel van die ondernemers zijn vrouw?
0 1 2 3 4 5 > 5 NVT
- 9 c Hoeveel werknemers telt het grootste bedrijf?
0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 9 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
zeer weinig zeer veel NVT
- 10 a Hoeveel personen in *Nederland* met een eigen bedrijf ken je van naam?
0 1 2 3 4 5 > 5 NVT
- 10 b Hoeveel van die ondernemers zijn vrouw?
0 1 2 3 4 5 > 5 NVT
- 10 c Hoeveel werknemers telt het grootste bedrijf?
0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 10 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
zeer weinig zeer veel NVT
- 11 a Hoeveel personen *wereldwijd* met een eigen bedrijf ken je van naam?
0 1 2 3 4 5 > 5 NVT
- 11 b Hoeveel van die ondernemers zijn vrouw?
0 1 2 3 4 5 > 5 NVT
- 11 c Hoeveel werknemers telt het grootste bedrijf?
0 1 2 – 10 11 – 50 51 – 100 > 101 NVT
- 11 d In hoeverre zie je deze ondernemers als voorbeeld voor jezelf?
zeer weinig zeer veel NVT

Nu volgen 9 vragen over opvattingen van voor jou belangrijke personen, over ondernemers. Kruis steeds de best passende positie aan, of kies NVT

- 12 a Over ondernemers oordeelt mijn *vriend(in)* in het algemeen
zeer negatief zeer positief NVT
- 12 b Over vrouwelijke ondernemers oordeelt mijn vriend(in) in het algemeen
zeer negatief zeer positief NVT
- 12 c Over mannelijke ondernemers oordeelt mijn vriend(in) in het algemeen
zeer negatief zeer positief NVT
- 12 d In hoeverre houdt je rekening met deze opvattingen van je *vriend(in)*?
zeer weinig zeer veel NVT

- 13 a Over ondernemers oordeelt mijn *familiekring* over het algemeen
 zeer negatief zeer positief NVT
- 13 b Over vrouwelijke ondernemers oordeelt mijn *familiekring* over het algemeen
 zeer negatief zeer positief NVT
- 13 c Over mannelijke ondernemers oordeelt mijn *familiekring* over het algemeen
 zeer negatief zeer positief NVT
- 13 d In hoeverre houdt je rekening met deze opvattingen van je *familiekring*?
 zeer weinig zeer veel NVT
- 14 a Over ondernemers oordeelt mijn *vriendenkring* in het algemeen
 zeer negatief zeer positief NVT
- 14 b Over vrouwelijke ondernemers oordeelt mijn *vriendenkring* in het algemeen
 zeer negatief zeer positief NVT
- 14 c Over mannelijke ondernemers oordeelt mijn *vriendenkring* in het algemeen
 zeer negatief zeer positief NVT
- 14 d In hoeverre houdt je rekening met deze opvattingen van je *vriendenkring*?
 zeer weinig zeer veel NVT
- 15 a Over ondernemers oordeelt het *UT-nieuws* in het algemeen
 zeer negatief zeer positief NVT
- 15 b Over vrouwelijke ondernemers oordeelt het *UT-nieuws* in het algemeen
 zeer negatief zeer positief NVT
- 15 c Over mannelijke ondernemers oordeelt het *UT-nieuws* in het algemeen
 zeer negatief zeer positief NVT
- 15 d In hoeverre houdt je rekening met deze opvattingen van het *UT-nieuws*?
 zeer weinig zeer veel NVT
- 16 a Over ondernemers oordelen voor mij *belangrijke medestudenten* in het algemeen
 zeer negatief zeer positief NVT
- 16 b Over vrouwelijke ondernemers oordelen voor mij *belangrijke medestudenten* in het algemeen
 zeer negatief zeer positief NVT
- 16 c Over mannelijke ondernemers oordelen voor mij *belangrijke medestudenten* in het algemeen
 zeer negatief zeer positief NVT
- 16 d In hoeverre houdt je rekening met deze opvattingen van voor jou *belangrijke medestudenten*?
 zeer weinig zeer veel NVT
- 17 a Over ondernemers oordelen voor mij belangrijke *UT docenten of medewerkers* in het algemeen
 zeer negatief zeer positief NVT
- 17 b Over vrouwelijke ondernemers oordelen voor mij belangrijke *UT docenten of medewerkers* in het algemeen
 zeer negatief zeer positief NVT
- 17 c Over mannelijke ondernemers oordelen voor mij belangrijke *UT docenten of medewerkers* in het algemeen
 zeer negatief zeer positief NVT
- 17 d In hoeverre houdt je rekening met deze opvattingen van voor jou belangrijke *UT docenten of medewerkers*?
 zeer weinig zeer veel NVT

- 18 a Over ondernemers oordelen voor mij belangrijke *regionale media* (krant, rtv) in het algemeen zeer negatief zeer positief NVT
- 18 b Over vrouwelijke ondernemers oordelen voor mij belangrijke *regionale media* (krant, rtv) in het algemeen zeer negatief zeer positief NVT
- 18 c Over mannelijke ondernemers oordelen voor mij belangrijke *regionale media* (krant, rtv) in het algemeen zeer negatief zeer positief NVT
- 18 d In hoeverre houdt je rekening met deze opvattingen van voor jou belangrijke *regionale media* (krant, rtv)? zeer weinig zeer veel NVT

- 19 a Over ondernemers oordelen voor mij belangrijke *landelijke media* (krant, rtv) in het algemeen zeer negatief zeer positief NVT
- 19 b Over vrouwelijke ondernemers oordelen voor mij belangrijke *landelijke media* (krant, rtv) in het algemeen zeer negatief zeer positief NVT
- 19 c Over mannelijke ondernemers oordelen voor mij belangrijke *landelijke media* (krant, rtv) in het algemeen zeer negatief zeer positief NVT
- 19 d In hoeverre houdt je rekening met deze opvattingen van voor jou belangrijke *landelijke media* (krant, rtv)? zeer weinig zeer veel NVT

- 20 a Over ondernemers oordelen voor mij belangrijke *internationale media* (internet) in het algemeen zeer negatief zeer positief NVT
- 20 b Over vrouwelijke ondernemers oordelen voor mij belangrijke *internationale media* (internet) in het algemeen zeer negatief zeer positief NVT
- 20 c Over mannelijke ondernemers oordelen voor mij belangrijke *internationale media* (internet) in het algemeen zeer negatief zeer positief NVT
- 20 d In hoeverre houdt je rekening met deze opvattingen van voor jou belangrijke *internationale media*? zeer weinig zeer veel NVT

Tot slot 3 vragen over je carrièrekeuze. Kruis steeds de best passende positie aan.

21 Heb jij op dit moment een eigen bedrijf? Nee Ja

Zo ja

21 a Hoeveel werknemers telt het (grootste) bedrijf?

1 2 – 10 11 – 50 51 – 100 > 101

Zo nee,

21 b Heb je wel eens overwogen om een eigen bedrijf te starten Nee Ja

21 c Heb je wel eens concrete stappen gezet om een eigen bedrijf te starten Nee Ja

22 Kun je aangeven in welke mate je voorkeur uitgaat naar werknemer zijn of een eigen bedrijf hebben?

Werknemer zijn Een eigen bedrijf hebben

23 Kun je aangeven in welke mate je het eens bent met de volgende stellingen

23 a Ik ben positief over het starten van mijn eigen bedrijf										
	Zeer oneens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				Zeer eens
23 b Ik ben vastbesloten (nog) een eigen bedrijf te starten										
	Zeer oneens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				Zeer eens
23 c Ik wil zeker niet (nogmaals) een eigen bedrijf starten										
	Zeer oneens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				Zeer eens
23 d Ik wil tijdens mijn studie (nog) een eigen bedrijf starten										
	Zeer oneens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Zeer eens
23 e Ik wil na mijn studie (nog) een eigen bedrijf starten										
	Zeer oneens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Zeer eens
23 f Ik wil ooit (nog) een eigen bedrijf starten										
	Zeer oneens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Zeer eens

Dit is het einde van de vragenlijst. Ik dank je hartelijk voor je medewerking aan mijn afstudeeronderzoek. Wil je geïnformeerd worden over de uitkomsten van mijn onderzoek, vul dan hierna je e-mail adres in.

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