



2013

Global University Entrepreneurial Spirit Students' Survey



The University of Vermont

GUESSS 2013

Student Entrepreneurship at the University of Vermont:
A Survey of Intentions and Activities

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1 Introduction

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) studies the entrepreneurial intentions and activities of students around the world. The Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) started this project in 2003. Since then, a new wave of data collection has been carried out every two years. The GUESSS project has grown and become more international with each new wave of data collection. In 2013, data was collected from 109,026 students in 34 countries. This is the first time that USA is involved in this study through the participation of the University of Vermont (UVM) and Kennesaw State University. An international report is also available at:

http://www.guesssurvey.org/PDF/2013/GUESSS_INT_2013_REPORT.pdf

1.1 GUESSS goals

The primary goal is to document the founding intention and entrepreneurial activity of students over time. In addition, the project allows for:

- Systematic and long-term observation of entrepreneurial intentions and activities of students.
- Identification of antecedents and boundary conditions in the context of new venture creation and entrepreneurial careers in general.
- Observation and evaluation of Universities' activities and offerings related to the entrepreneurial education of their students.

The GUESSS project offers valuable information for different stakeholders, for example:

- Participating countries:
 - To generate insights on their respective basic conditions for entrepreneurship in general
 - To learn more about the entrepreneurial power of their students
- Participating Universities:

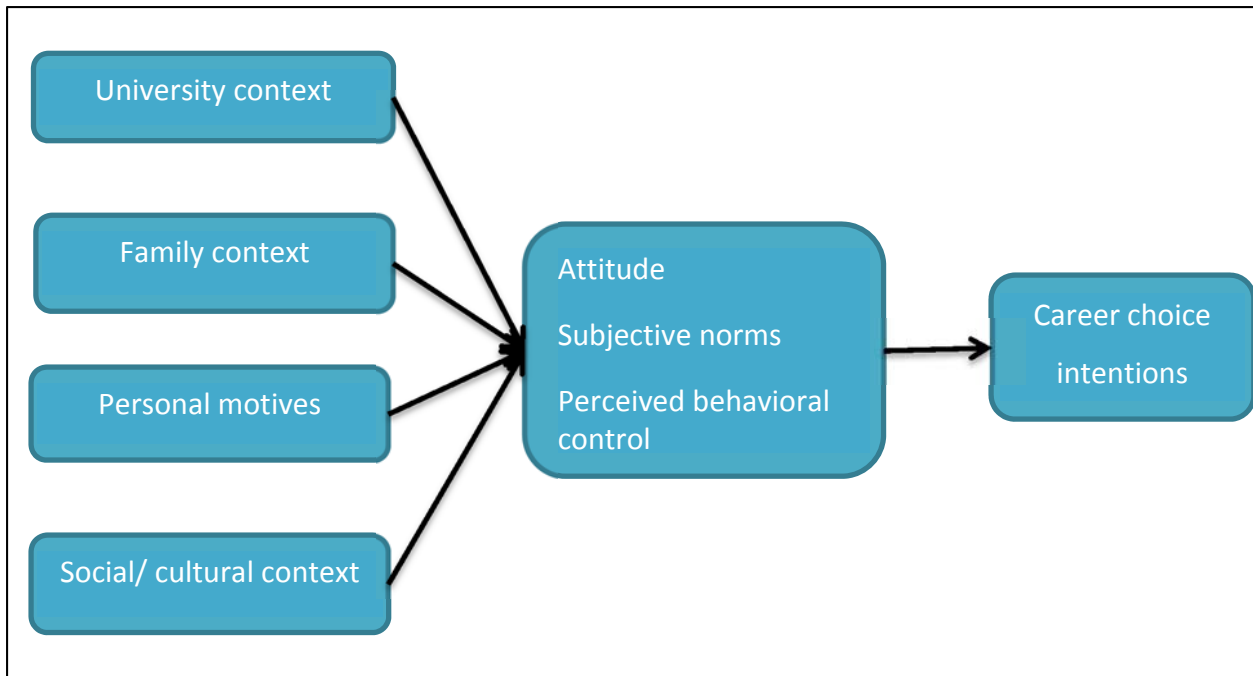
- To be able to assess the quality and quantity of their offerings in the context of entrepreneurship
- Politics and the public:
 - To be sensitized to entrepreneurship in general and new venture creation in particular, and hopefully identify a need for action
- Students
 - To benefit from the implementation of respective actions in the long run.

To date, GUESSS is probably the largest entrepreneurship project in the world. The aim of the GUESSS project is to continue its expansion to create an even stronger impact in research and practice.

1.2 Theoretical framework

The theoretical foundation for the GUESSS project is the theory of planned behavior (Ajzen, 1991, 2002; Fishbein & Ajzen, 1975). According to this theory, the probability that a behavior will occur is dependent on the intention of an individual to engage in that behavior. Intentions, in turn, are molded by three types of beliefs: (1) individuals' attitudes regarding the desirability of the outcome to the initiator, (2) acceptability of the outcomes according to the social norms of a reference group, (3) perception that the behavior will feasibly lead to the desired outcomes. Together, these beliefs form an individual's intentions towards engaging in a behavior. These intentions, together with the presence of an appropriate opportunity within the environment, result in the individual exhibiting a particular behavior (Ajzen, 2002).

The GUESSS project focuses on career choice intentions of students, with a specific interest in entrepreneurial intentions. Based on the model of planned behavior, GUESSS investigates four factors that can influence a person's entrepreneurial intentions: university context, family context, personal motives and social/cultural context.



Source: Adapted from the International Swiss report of GUESSS 2013/2014 (Sieger, Fueglistaller, & Zellweger, 2014)

Figure 1: Theoretical framework of GUESSS 2013

1.3 Project organization and data collection procedure

The GUESSS data from each participating country / university is collected through a web-based online survey organized and managed by the KMU-HSG at the University of St. Gallen in Switzerland. A representative at each school manages the relationship with the students including providing contact information for the students to the KMU-HSG office, monitoring progress, offering incentives to students for participation, and preparing institution level reports. The global report is prepared by KMU-HSG.

1.4 International country representatives and their students

Table 1 lists the 34 countries in the survey along with the participating institutions and the representatives at each of these institutions.

Table 1: List of country representatives

#	Country	Representative	University
1	Argentina (ARG)	Prof. Silvia Carbonell, Aranzazu Echezarreta	IAE Business School
2	Australia (AUS)	Prof. Paull Weber, Louis Geneste	Curtin University of Technology
3	Austria (AUT)	Prof. Norbert Kailer, Birgit Wimmer-Wurm	Johannes Kepler University Linz
4	Belgium (BEL)	Prof. Dr. Hans Crijns, Karen de Visch	Vlerick Leuven Gent Management School
5	Brazil (BRA)	Prof. Edmilson Lima	UNINOVE Universidade Nove de Julho
6	Canada (CAN)	Prof. Alexandra Dawson	Concordia University, Montreal
7	Colombia (COL)	Prof. Claudia Alvarez	Universidad de Medellin
8	Denmark (DEN)	Prof. Britta Boyd, Prof. Kristian Philipsen	University of Southern Denmark
9	England (ENG)	Prof. Robert Blackburn, Arif Attar	Kingston University, Kingston
10	Estonia (EST)	Prof. Urve Venesaar	Tallinn University of Technology
11	Finland (FIN)	Prof. Asko Miettinen, Sampo Kokkonen	Lappeenranta University of Technology
12	France (FRA)	Prof. Alain Fayolle, Emeran Nziali	EM Lyon Business School
13	Germany (GER)	Dr. Heiko Bergmann	University of St.Gallen
14	Greece (GRE)	Prof. Katerina Sarri	University of Western Macedonia
15	Hungary (HUN)	Dr. Szilveszter Farkas	Budapest Business School
16	Israel (ISR)	Prof. Brian Polin	Jerusalem College of Technology
17	Italy (ITA)	Prof. Tommaso Minola, Giovanna Campopiano	University of Bergamo
18	Japan (JAP)	Prof. Tomoyo Kazumi	Senshu University
19	Liechtenstein (LIE)	Prof. Dr. Urs Baldegger, Simon Zäch	Hochschule Liechtenstein
20	Luxembourg (LUX)	Prof. Pol Wagner, Frédéric Ternes	Institut Universitaire International Luxembourg
21	Malaysia (MAL)	Prof. Raja Suzana Kasim	Universiti Malaysia Kelantan
22	Mexico (MEX)	Prof. Juan Arriaga	EGADE Business School Tecnologico de Monterrey
23	Netherlands (NED)	Prof. Roy Thurik, Dr. Ingrid Verheul, Sofia Karali	Erasmus University, Rotterdam
24	Nigeria (NIG)	Prof. Tomola Obamuyi	Adekunle Ajasin University
25	Poland (POL)	Prof. Adrianna Lewandowska, Lukasz Tylczynski	Poznan School of Banking
26	Portugal (POR)	Prof. Joao Leitao, Prof. Miguel Amaral	Technical University of Lisbon Instituto Superior Tecnico
27	Romania (ROM)	Dr. Lilian Ciachir	University of Bucharest
28	Russia (RUS)	Prof. Galina Shirokova, Tatyana Tsukanova	St.Petersburg State University Graduate School of Management
29	Scotland (SCO)	Dr. Erik Monsen	University of Strathclyde, Glasgow
30	Singapore (SIN)	Prof. Poh Kam Wong, Low Pei Chin	American University of Singapore
31	Slovenia (SLO)	Prof. Jaka Vadjnal, Predrag Ljubotina	GEA College of Entrepreneurship
32	Spain (ESP)	Prof. Joan Batista, Prof. Ricard Serlavos, Maika Valencia	ESADE
33	Switzerland (SUI)	Prof. Philipp Sieger Prof. Rico Baldegger	University of St.Gallen HEG Fribourg
34	USA	Prof. Pramodita Sharma Prof. Torsten Pieper	University of Vermont (UVM) Kennesaw State University (KSU)

Source: GUESSS 2014 International Report

The following table presents response information from the 2013 wave of the GUESSS project by country. The response rate varies from 0.4% to 33%. The response rate for UVM was 12.2%.

Table 2: Universities, students and response rate of participating countries

	Responses	Valid Percent	# of universities	# addressed students	Response rate
ARG	190	.2	14	1,800	10.6
AUS	495	.5	6	3,500	14.1
AUT	4,220	3.9	34	149,587	2.8
BEL	402	.4	16	n.a.	n.a.
BRA	12,561	11.5	104	220,000	5.7
CAN	509	.5	1	7,436	6.8
COL	801	.7	22	5,700	14.1
DEN	1,027	.9	10	28,000	3.7
ENG	654	.6	20	n.a.	n.a.
ESP	10,545	9.7	21	126,870	8.3
EST	1,391	1.3	23	33,880	4.1
FIN	704	.6	12	33,943	2.1
FRA	332	.3	14	14,450	2.3
GER	10,570	9.7	44	292,000	3.6
GRE	435	.4	8	2,500	17.4
HUN	8,844	8.1	31	161,000	5.5
ISR	1,086	1.0	17	4,500	24.1
ITA	7,765	7.1	46	142,698	5.4
JPN	890	.8	19	5,835	15.3
LIE	203	.2	2	607	33.4
LUX	153	.1	4	6,457	2.4
MEX	637	.6	17	5,000	12.7
MYS	2,452	2.2	21	7,400	33.1
NED	9,907	9.1	67	268,808	3.7
NGR	7	.0	1	n.a.	n.a.
POL	11,860	10.9	37	115,000	10.3
POR	213	.2	3	3,000	7.1
ROM	277	.3	10	n.a.	n.a.
RUS	4,578	4.2	35	28,600	16.0
SCO	280	.3	11	68,900	0.4
SIN	6,471	5.9	9	88,990	7.3
SLO	903	.8	44	22,000	4.1
SUI	7,419	6.8	33	87,200	8.5
University of Vermont (overall USA)	94 (245)	.09 (0.2)	1 (2)	768 (25,768)	12.2 (1.0)
Total	109,026	100.0	759	1,961,429	5.5

Source: GUESSS 2014 International Report

2 Participants and sample

This section describes the characteristics of the students who participated at UVM.

2.1 Participants

All undergraduate students attending the School of Business Administration at UVM were contacted electronically at the end of 2013 and asked if they were interested in completing a survey. Out of 768 students invited to participate, 94 students responded, resulting in a response rate of 12.2%.

2.2 Sample characteristics

This section focuses on demographics of the sample, including information such as age, gender, marital status, nationality and field of study.

2.2.1 Age

The majority of UVM participants (54.4%) were under the age of 20, followed by the category 20-24 years old (44.0%). Very few students were above 25 years old (1.5%), making this sample on average a younger sample than the international one.

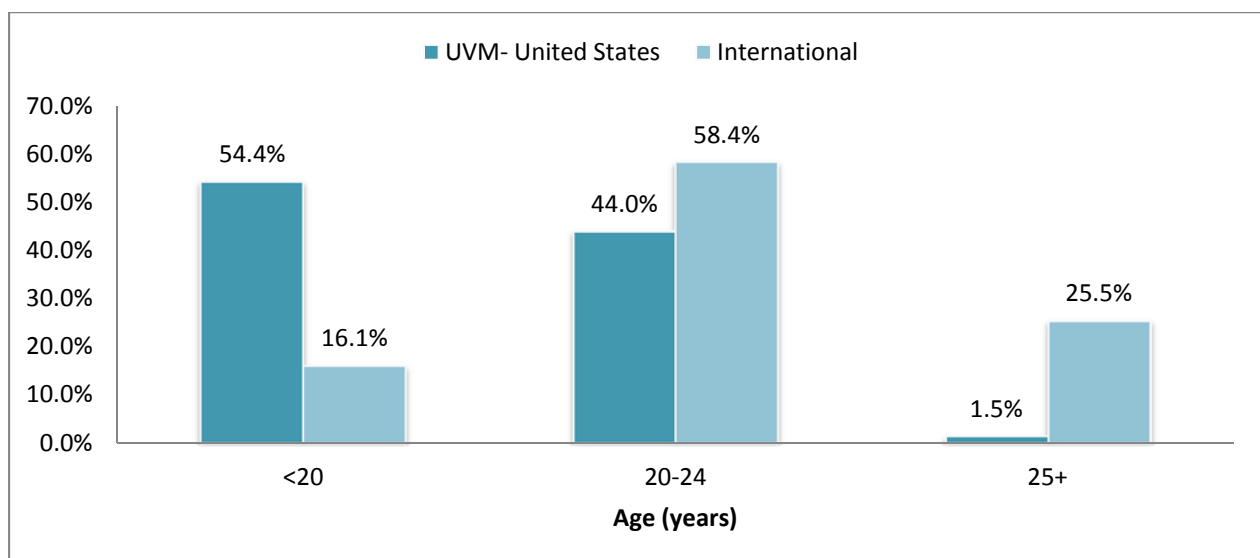


Figure 2: Age of participants

2.2.2 Gender

The gender distribution of the UVM sample shows more male than female respondents (53.2% vs. 46.8%). In contrast, internationally 58.4% of the respondents were females.

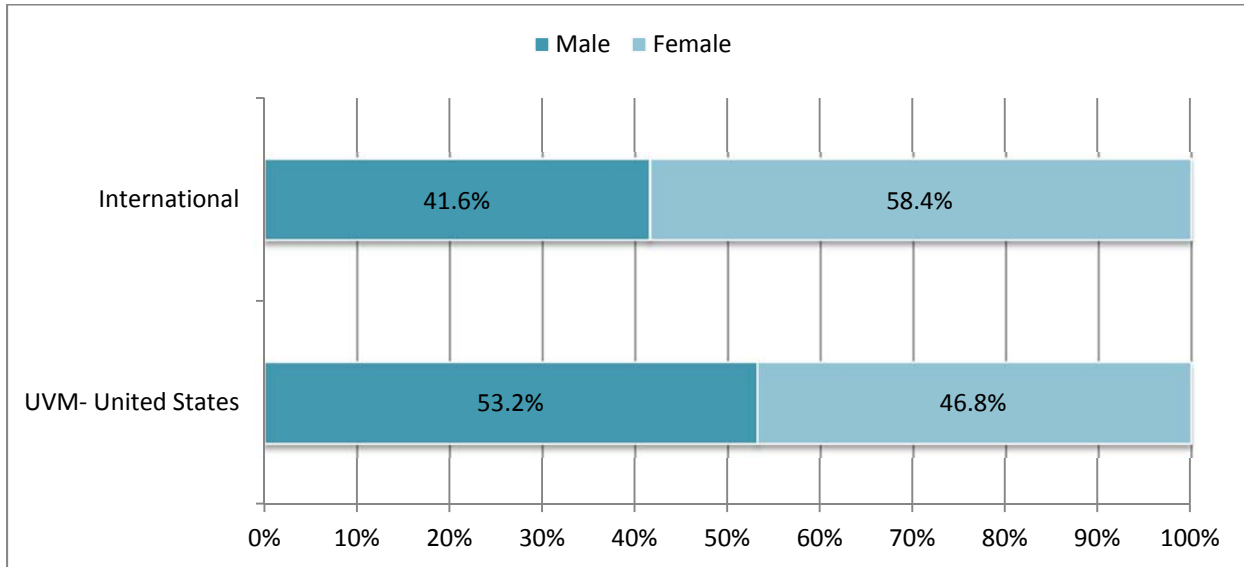


Figure 3: Gender of participants

2.2.3 Marital status

The student sample was homogeneous with regard to marital status, with 98.9% of respondents indicating they were single (Figure 4).

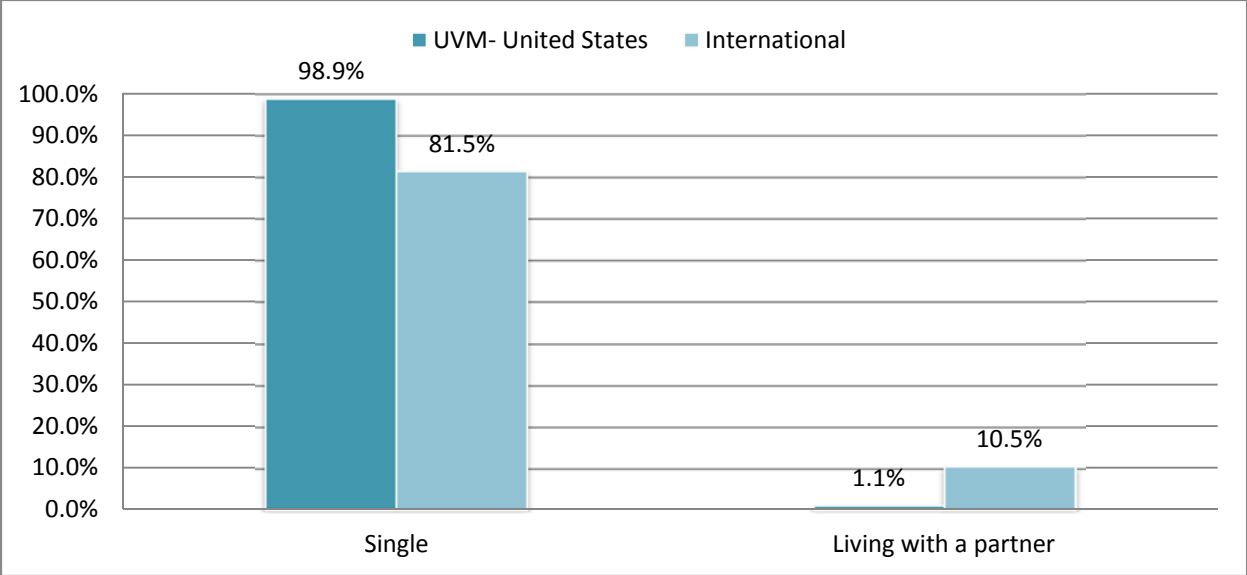


Figure 4: Marital status of participants

2.2.4 Nationality

Most of the respondents (98.9%) indicated their nationality as being American (Figure 5). The next largest nationality was Chinese, with 5.5%.

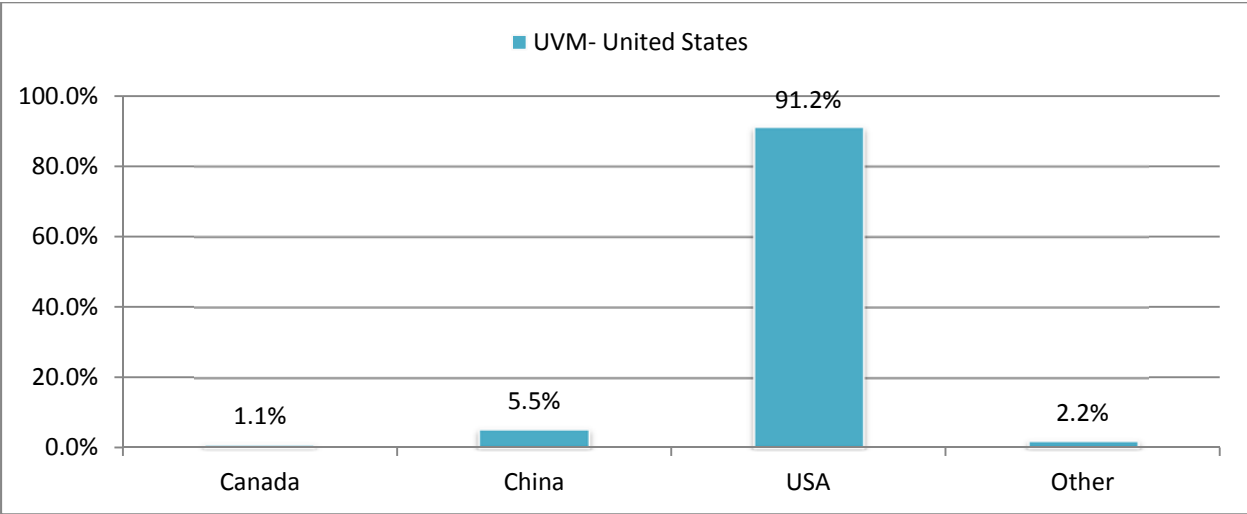


Figure 5: Nationality of participants

2.2.5 Level of studies

Almost all respondents (94.7%) were pursuing an undergraduate degree (Figure 6).

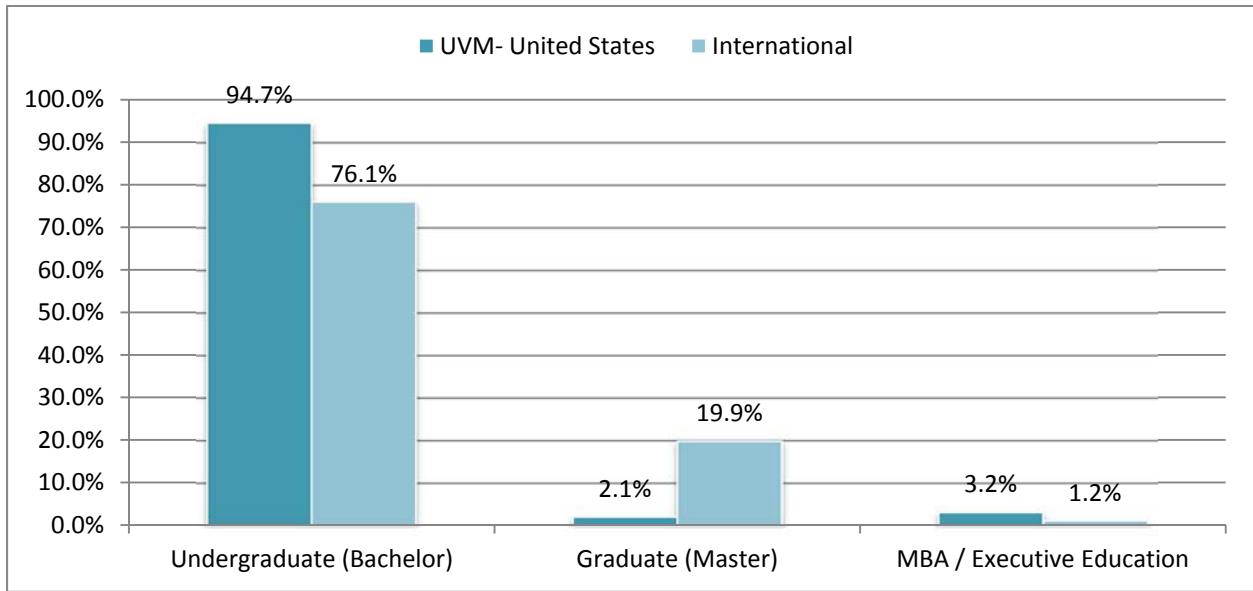


Figure 6: Level of studies indicated by participants

2.2.6 Field of studies

Participants were asked to indicate what field of study they were currently in (Figure 7). The majority (95.7%) indicated that they were in the field of business/management.

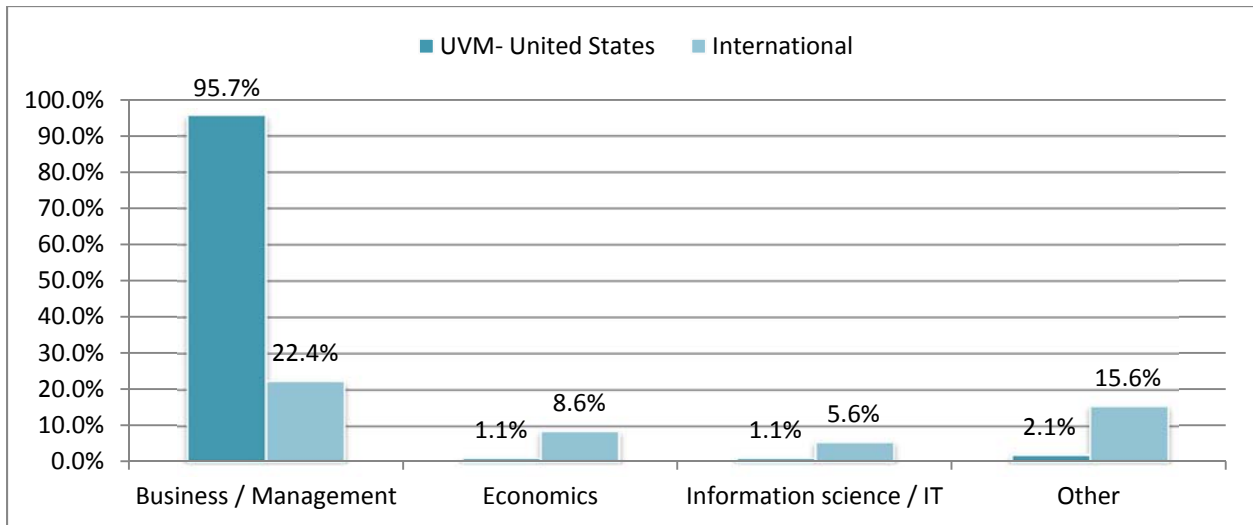


Figure 7: Fields of study

2.3 *Summary*

The UVM sample shows high homogeneity when compared to the international sample. The majority of participants indicated that they are less than 20 years old, single and American. The majority also indicated that they are pursuing an undergraduate degree, majoring in business/management. With regard to gender distribution, more males than females participated in the study.

3 Entrepreneurial intentions of students

One of the main goals of the GUESSS project is to determine students' entrepreneurial intentions. This section analyzes the following: reported career choice intentions, entrepreneurial intention index, level of motivation to become entrepreneurs, effects of the environmental context on entrepreneurial intentions, self-perceived level of competency of entrepreneurial related tasks, and tolerance for risk.

3.1 Career choice intentions

This subsection looks at participants' career choice intentions right after graduation and five years after graduation, as well as by gender. These intentions are compared with the international sample.

3.1.1 Career choice intentions right after graduation

Upon graduation, 76.6% of participants intend to become employees of a (large, medium, or small) for-profit organization, with the majority wanting to work for a medium-sized firm (30.9%) (Figure 8). Only 6.4% of the participants intend to start their own business right after graduation, and a slim 3.2% intend to join their family businesses. These results are fairly consistent with those of the international sample, although the intention to work for a medium-sized firm is higher for UVM students. Internationally, more students desire to work for larger firms with over 250 employees.

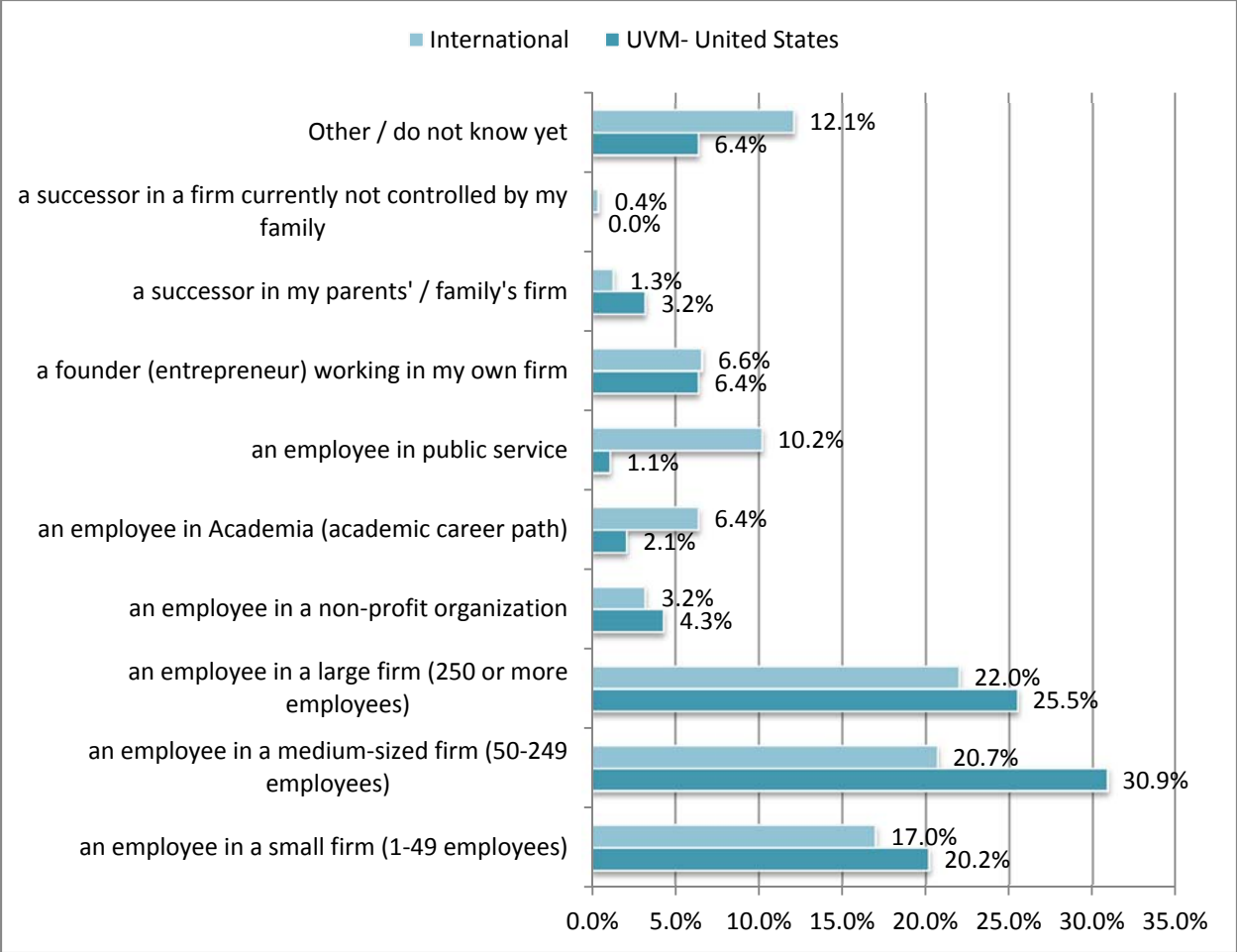


Figure 8: Career choice intentions right after graduation

3.1.2 Career choice intentions five years after graduation

When participants were asked about their career intentions five years after they graduated, 30.9% indicated that they planned to start their own businesses (Figure 9). This result is very close to that of the international sample (30.7%). In the next largest category, participants indicated that in five years' time they see themselves working for a large organization (28.7%), followed by medium-sized organization (20.2%) and small organization (7.4%).

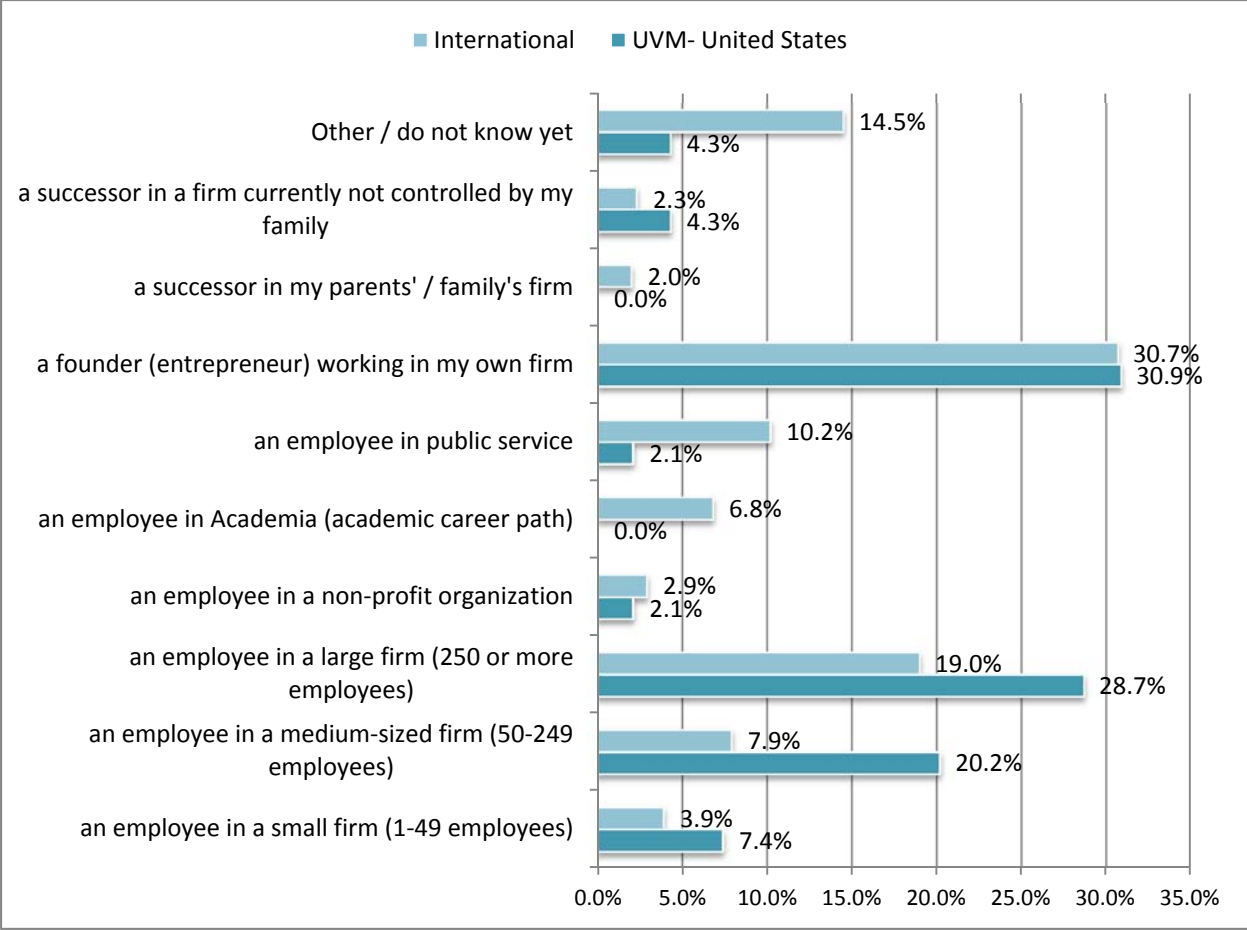


Figure 9: Career choice intentions five years after graduation

3.1.3 Changes in career choice intentions

Figure 10 compares career intentions right after graduation and five years later. Whilst after graduation the majority of UVM students (30.9%) intend to work in a medium-sized firm, five years later most of them (30.9%) intend to be entrepreneurs working in a firm they have started themselves. The largest change in career choice intentions for participants at UVM is indeed in the founder category, which increases by 24.5% five years after graduation. There are also changes among participants who intend to work for an employer. Whilst after graduation most respondents (30.9%) want to work in a medium-sized firm, five years later most respondents (28.7%) want to work in a large firm. These findings suggest that, after gaining work experience, respondents expect to move on with their career and either start their own

firm or work for a large one. Whilst 3.2% of respondents said they wanted to be a successor in their family business after graduation, none gave this response for five years after graduation.

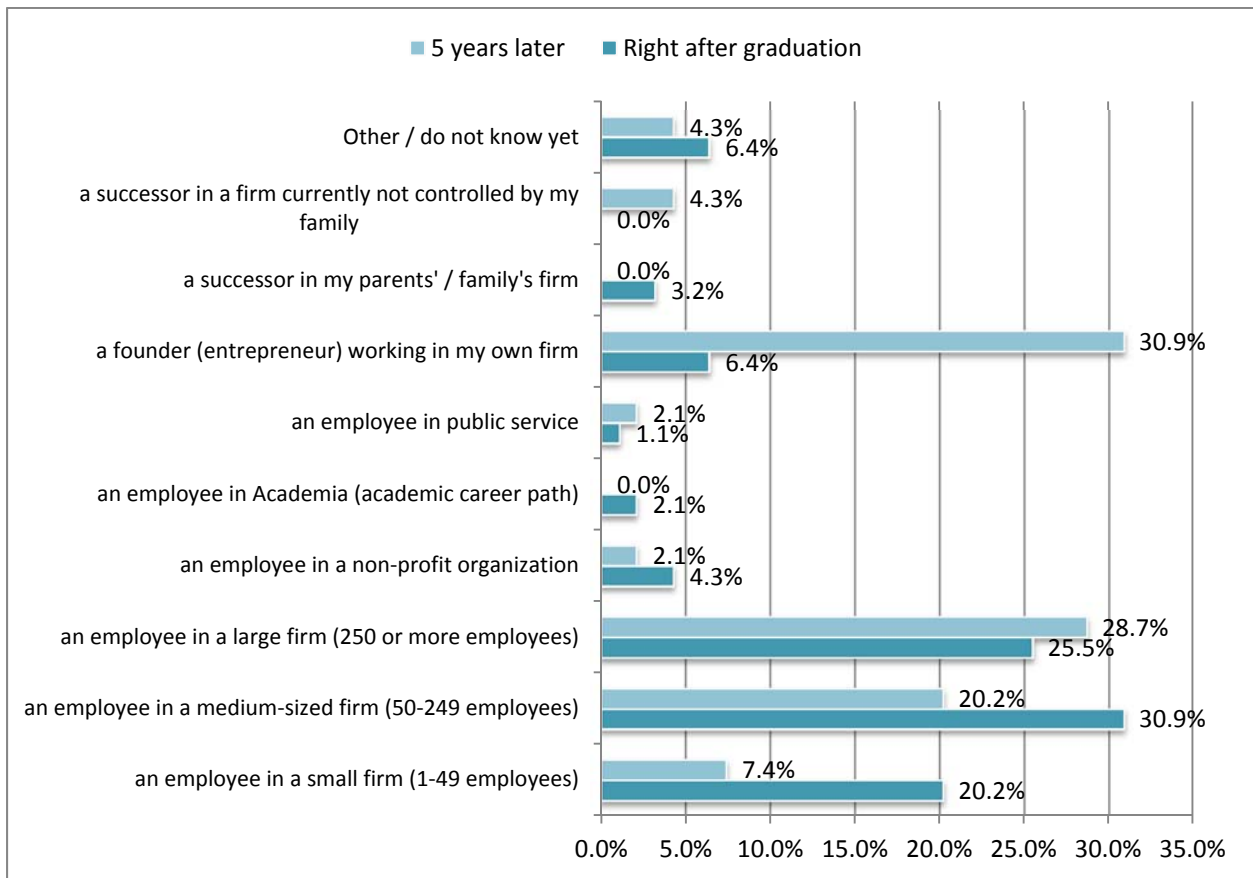


Figure 10: Changes in career choice intentions

3.1.4 Career choice intentions by gender

The data indicate that right after graduation both genders intend to take on the role of employee as opposed to a more entrepreneurial role (Figure 11). This is especially evident for female respondents (93.2%), none of which indicated that they would become founders or successors in their family business. Among male respondents, 76.0% indicated that they intend to become an employee right after graduation, 12.0% indicated that they intend to found their own businesses, and 6.0% indicated that they would become successors in their family businesses.

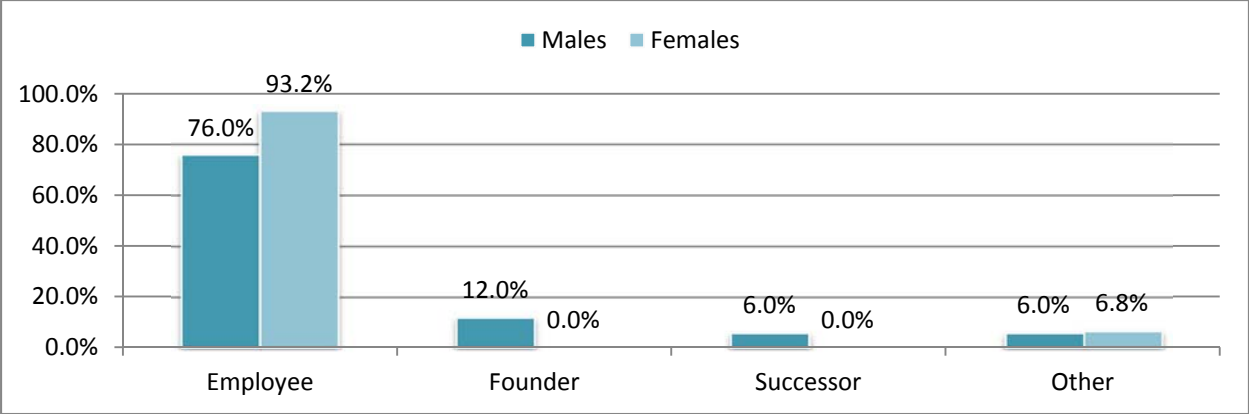


Figure 11: Career choice intentions by gender right after graduation

Five years later, the most significant change is among female participants (Figure 12), with 20.5% indicating they intend to found their own business and 9.1% intending to be a successor in their family business. Findings show a sharp increase in male respondents wanting to create their own business (40.0% five years after graduation, compared to 12.0% immediately after graduation). Also, none of the male respondents indicated they intend to be a successor in their family business five years after graduation.

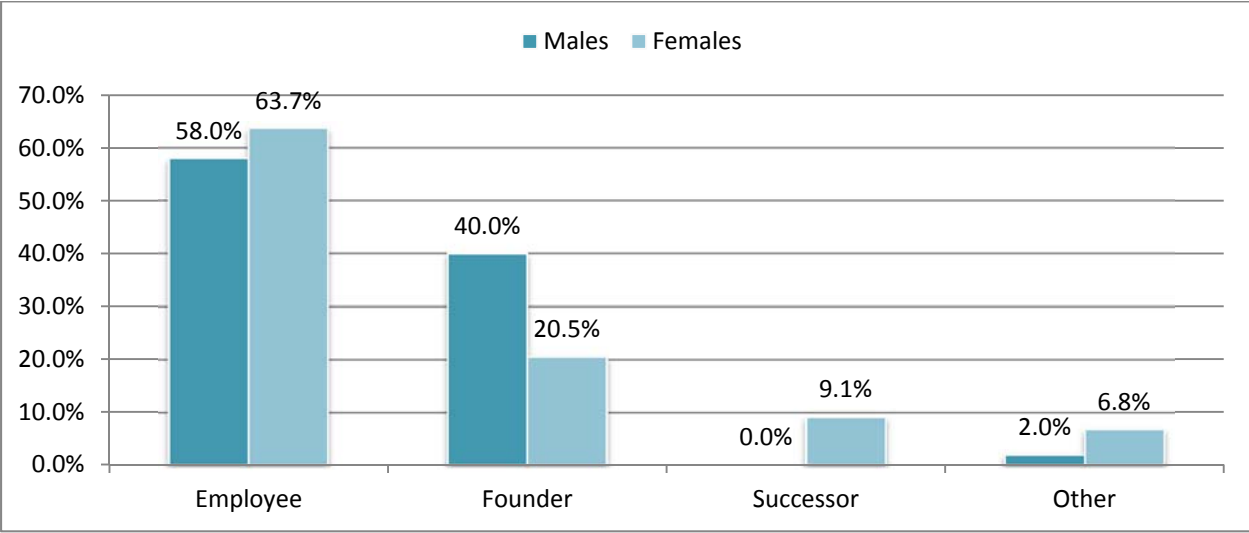


Figure 12: Career choice intentions by gender five years after graduation

3.2 Entrepreneurial intention index

The entrepreneurial index (Table 3) captures the extent to which students intend to start their own business in the future. The index is an average of six items, with responses ranging from 1 (strongly disagree) to 7 (strongly agree).

Table 3: Items included in the entrepreneurial intention index

Item	Text
1	I am ready to do anything to be an entrepreneur.
2	My professional goal is to become an entrepreneur.
3	I will make every effort to start and run my own firm.
4	I am determined to create a firm in the future.
5	I have very seriously thought of starting a firm.
6	I have the strong intention to start a firm someday.

The entrepreneurial intention index for UVM students is 3.85, slightly higher than the international average (3.7), indicating that UVM students on average have higher intentions than the international sample of becoming entrepreneurs in the future. The entrepreneurial intention for male respondents (4.38) is higher than that for female respondents (3.26).

3.3 Level of motivation

Motivation is an important factor that determines the career path choice of an individual (Figure 13). The following items, ranging from 1 (not important at all) to 7 (very important), were used to determine respondents' motivation for following a particular career path. The data show that "realizing a dream" was the most important motive for selecting a particular career path (6.12), followed by having "an exciting job" (6.03). "Being your own boss" was the least important reason for following a particular career path (4.16), in line with data included in Figure 8 which shows that after graduation most participants (76.6%) want to become an employee of a (large, medium, or small) for-profit organization. Data for UVM respondents are in line with the international data.

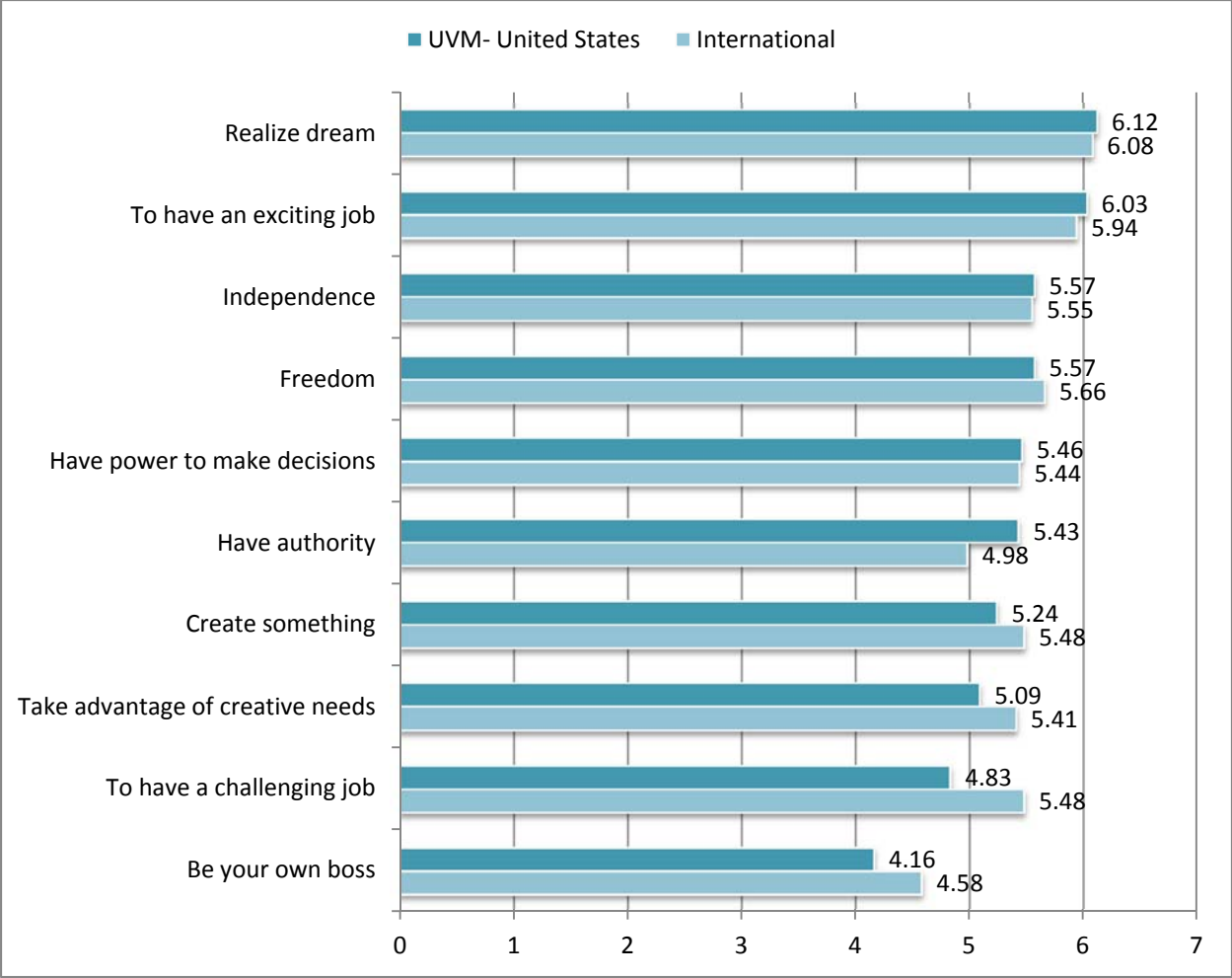


Figure 13: Comparing the importance of different career motives between UVM and international samples

3.4 Entrepreneurial context

The external context has been found to influence the entrepreneurial intentions of the students. In this section, we focus on the effect of the university, family and social contexts on participants’ entrepreneurial intent.

3.4.1 University context

Results indicate that 80.6% of the participants had not yet taken an entrepreneurship course (Figure 14). Only 9.7% were in a specific entrepreneurship program and 14.0% attended a compulsory entrepreneurship course. These numbers may help explain the low percentage of respondents intending to start their own business.

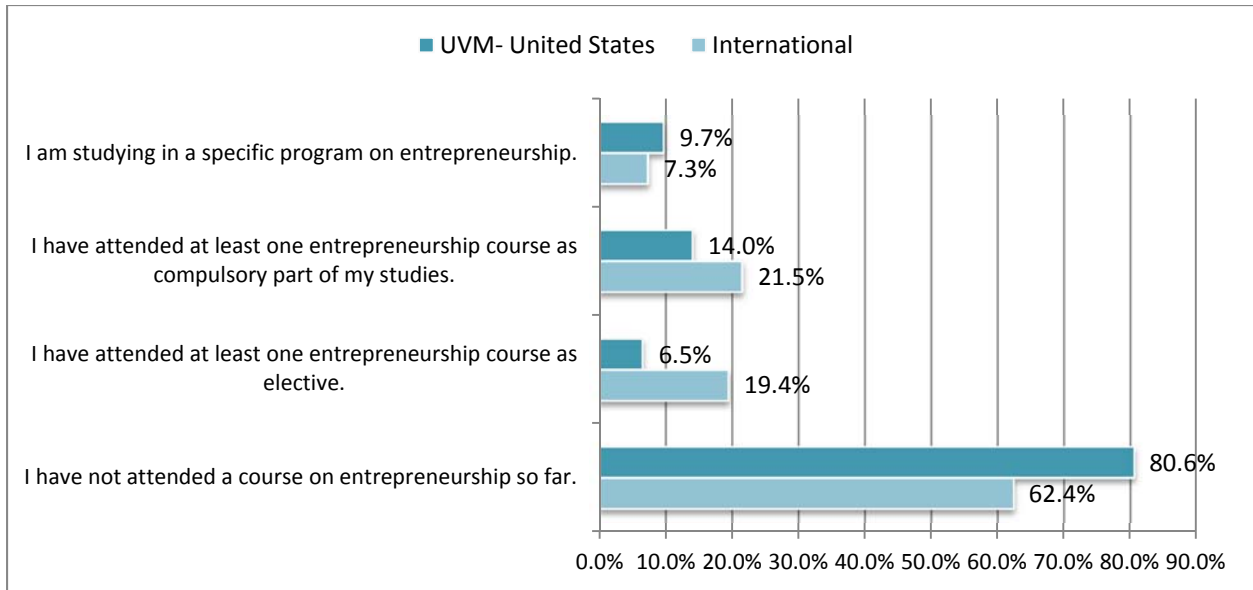


Figure 14: Attendance of entrepreneurship courses

Of those that have taken entrepreneurship classes, the majority of the participants (79.0%) indicated that they spent on average less than 20% of their total study time on those classes, with 47.4% spending up to 10% and 31.6% spending between 11% and 20% of their time on entrepreneurship classes (Figure 15).

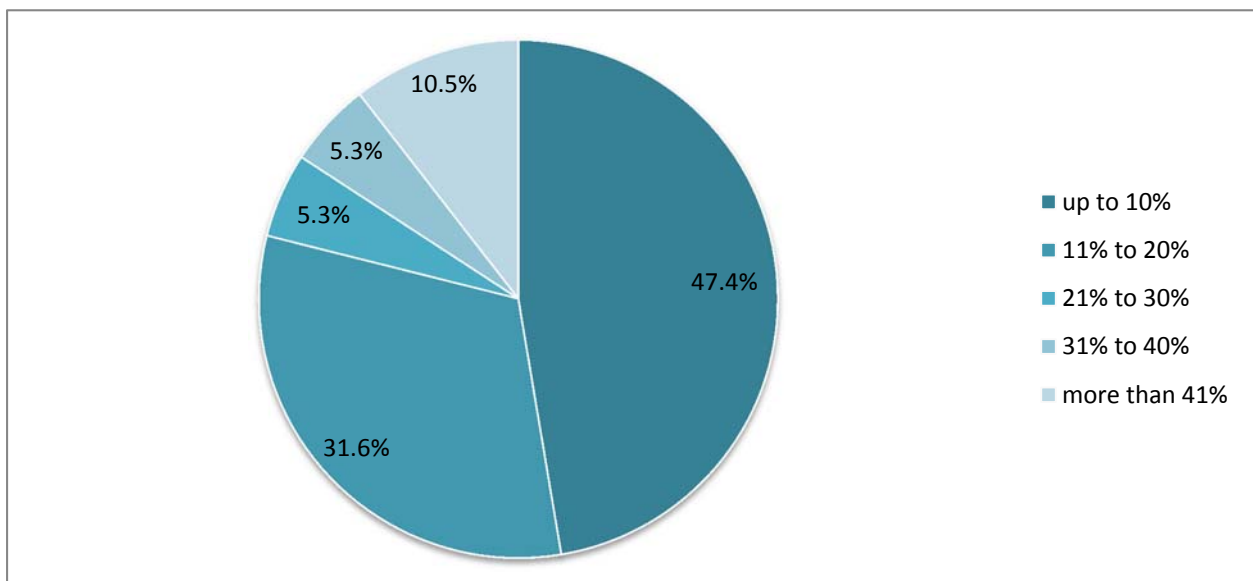


Figure 15: Percentage of total study time devoted to entrepreneurship courses

To look further into this phenomenon, we asked students what they learned by attending those classes (Table 4). Participants were asked to rate the following statements, all of which started with “The courses and offerings I attended...”, and rate the extent to which they agreed or disagreed with the statements (with 1 corresponding to “not at all” and 7 to “very much”).

Table 4: Items used to assess entrepreneurial learning at UVM

Item number	Item
1	...increased my understanding of the attitudes, values and motivations of entrepreneurs.
2	...increased my understanding of the actions someone has to take to start a business.
3	...enhanced my practical management skills in order to start a business.
4	...enhanced my ability to develop networks.
5	...enhanced my ability to identify an opportunity.

Data suggest that 61.2% of the participants felt that they benefited from the entrepreneurship courses taken (Figure 16), with 14.3% answering “strongly agree”, 22.6% “pretty agree” and 24.3% “rather agree”. Average responses for each statement ranged from 4.4 to 5.2.

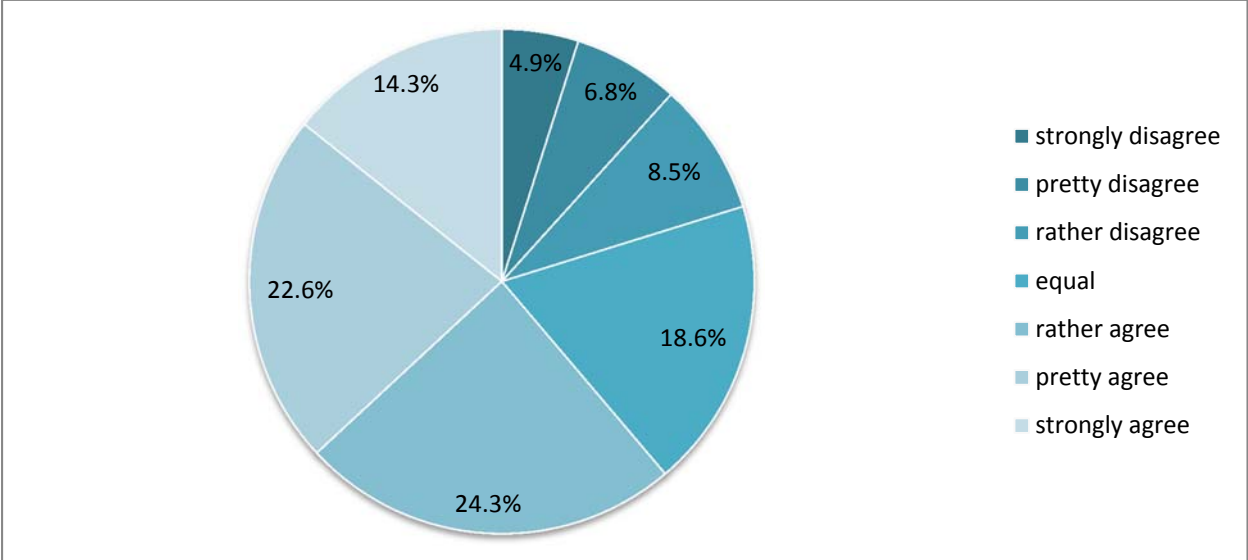


Figure 16: Average assessment of entrepreneurial learning

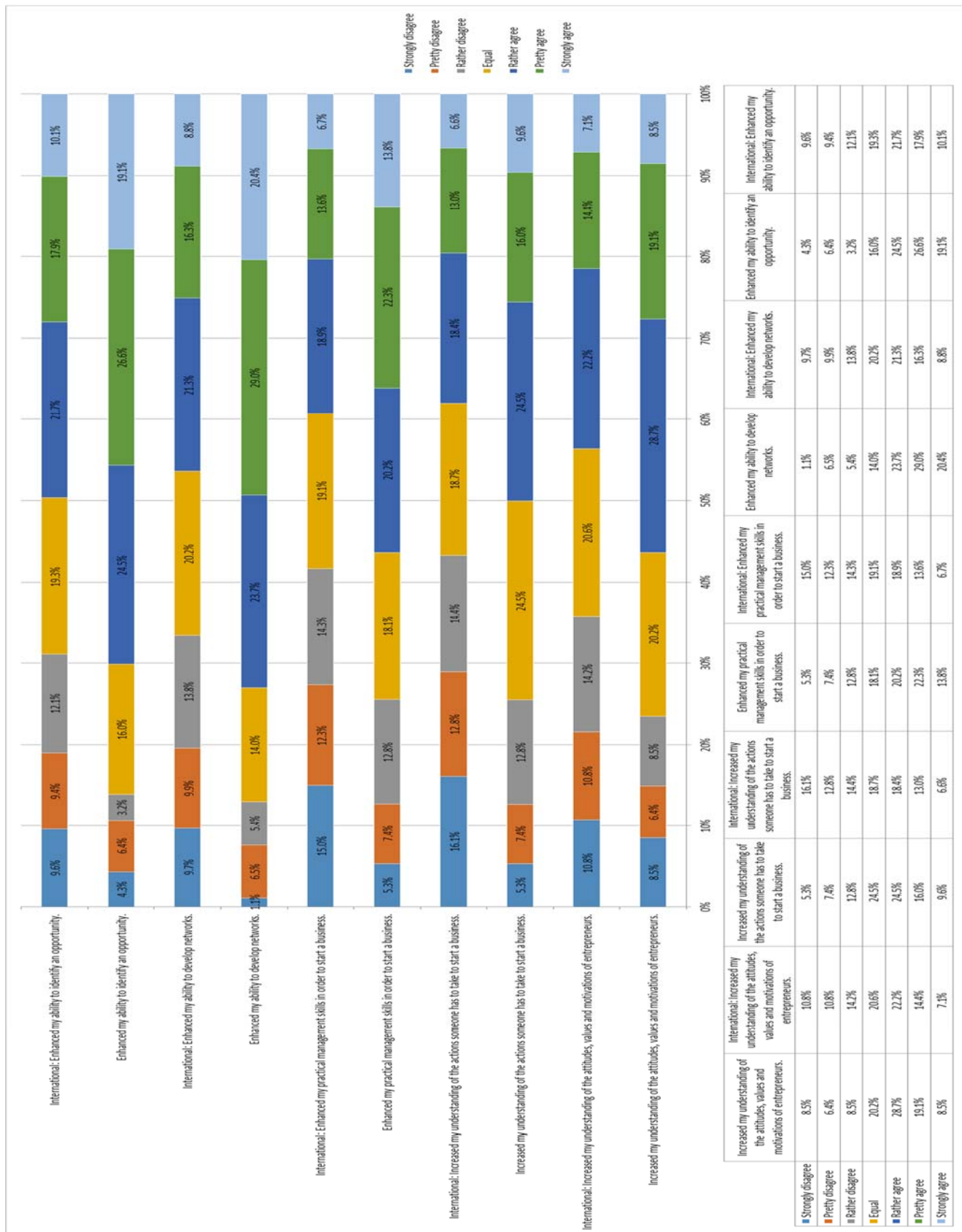


Figure 17: Comparing the assessment of entrepreneurial learning between UVM and international sample

Overall, UVM respondents gave more positive ratings with regard to entrepreneurial learning than the international sample, as indicated in Figure 17.

The entrepreneurial climate present within the university was also of interest since it makes up part of the university context and thus may influence the development of entrepreneurial intentions among students. The entrepreneurial climate was assessed using a 3-item measure (Table 5) which required participants to rate the extent to which they agreed or disagreed with each scale using a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Table 5: Items used to assess the entrepreneurial climate in UVM

Item number	Text	UVM	International
1	The atmosphere at my university inspires me to develop ideas for new businesses.	4.29	3.85
2	There is a favorable climate for becoming an entrepreneur at my university.	4.39	4.06
3	At my university, students are encouraged to engage in entrepreneurial activities.	4.66	4.17

Our results indicate that 76.2% of participants (rather/pretty/strongly) agreed with the entrepreneurial climate at UVM being favorable towards entrepreneurial activities (Figure 18).

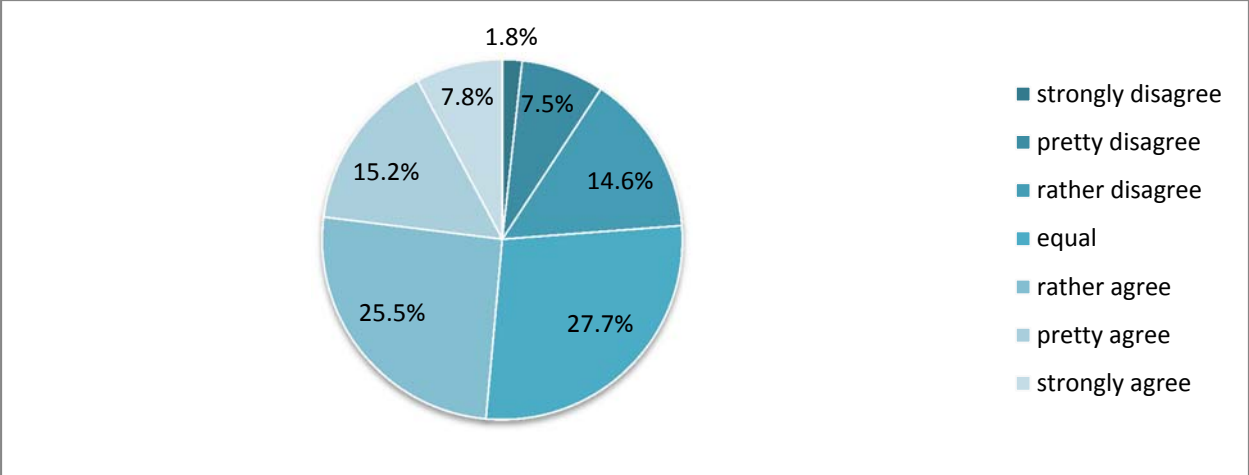
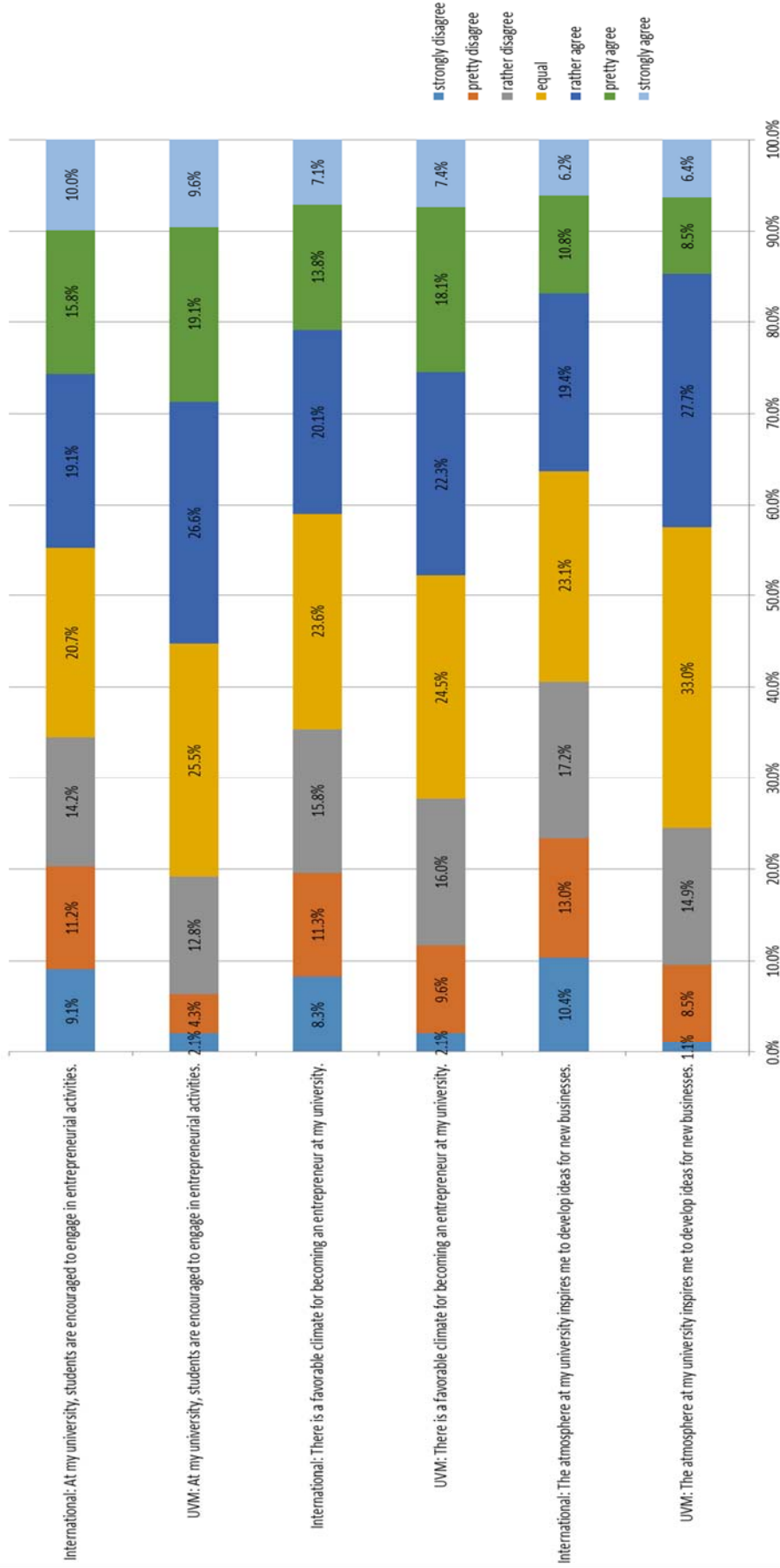


Figure 18: Assessment of entrepreneurial climate at UVM

If we compare the UVM and international samples, we notice that for each of the items the UVM participants rated the entrepreneurial climate higher than international ones (Figure 19).

Entrepreneurial environment at the universities



	UVM: The atmosphere at my university inspires me to develop ideas for new businesses.	International: The atmosphere at my university inspires me to develop ideas for new businesses.	UVM: There is a favorable climate for becoming an entrepreneur at my university.	International: There is a favorable climate for becoming an entrepreneur at my university.	UVM: At my university, students are encouraged to engage in entrepreneurial activities.	International: At my university, students are encouraged to engage in entrepreneurial activities.
strongly disagree	1.1%	10.4%	2.1%	8.3%	2.1%	9.1%
pretty disagree	8.5%	13.0%	9.6%	11.3%	4.3%	11.2%
rather disagree	14.9%	17.2%	16.0%	15.8%	12.8%	14.2%
equal	33.0%	23.1%	23.6%	23.6%	25.5%	20.7%
rather agree	27.7%	19.4%	22.3%	20.1%	26.6%	19.1%
pretty agree	8.5%	10.8%	18.1%	13.8%	19.1%	15.8%
strongly agree	6.4%	6.2%	7.4%	7.1%	9.6%	10.0%

Figure 19: Comparing the entrepreneurial environment between the UVM and international sample

3.4.2 Family context

The literature indicates that family may be another important influence on the entrepreneurial intentions of students. Participants were asked if either one of their parents, or both, were self-employed (Figure 20). 52.1% indicated that neither was self-employed; 11.7% indicated that both were; and 36.2% indicated that one was (26.6% the father and 9.6% the mother). This implies that, out of the 94 respondents, 45 (equivalent to 47.9%) had parents running their own business or being self-employed.

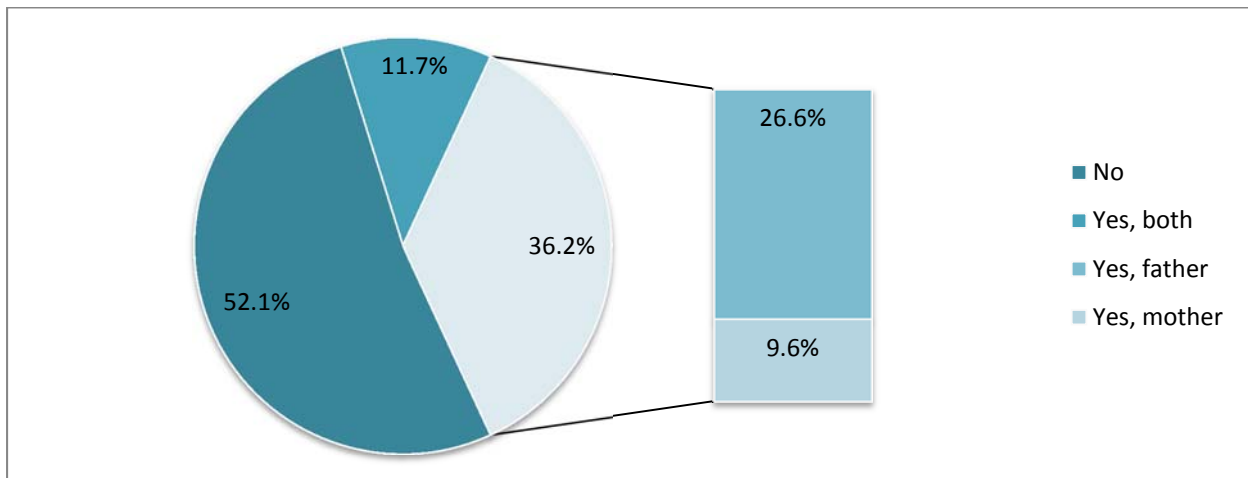


Figure 20: Percentage of students whose parents are self-employed

Figure 21 suggests that in fact the family context influences career intentions. Intended career paths of participants five years after graduation suggest that students who want to found their own business have entrepreneurial parents, while those who want to become employees do not.

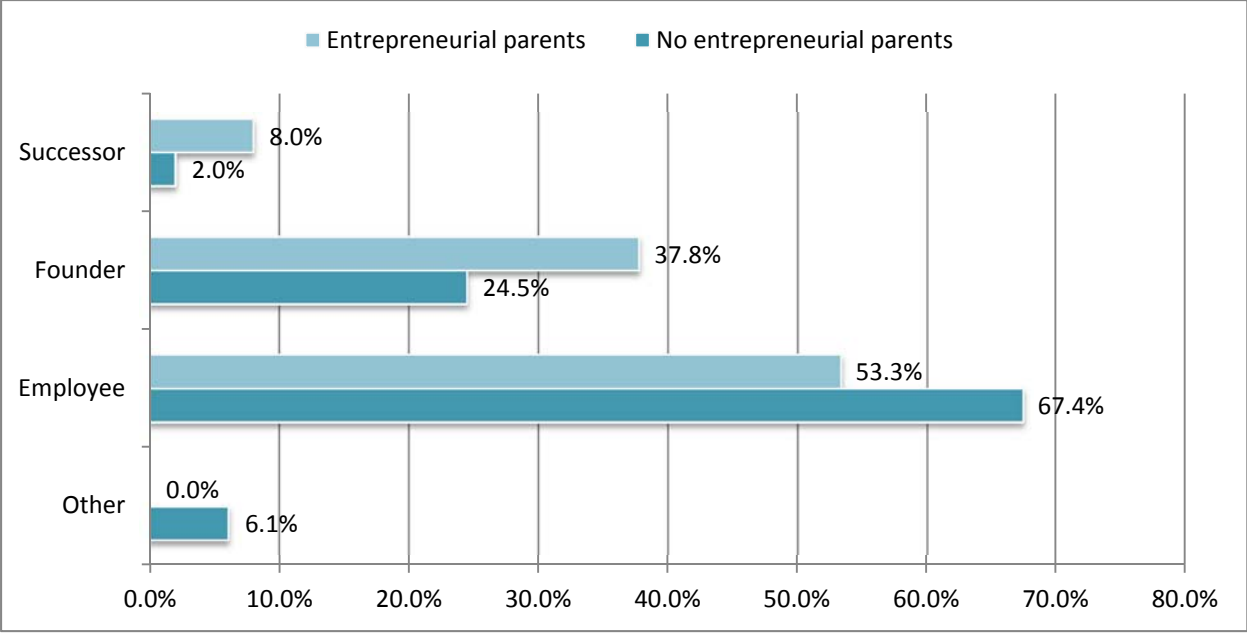


Figure 21: Comparing career choice of students five years after graduation with family background

3.4.3 Social context

Participants were asked about the reactions they would expect from their social environment should they decide to announce their intention of becoming entrepreneurs (Figure 22). The results suggest that the majority of participants believe that their social environment would react positively to their decision to become entrepreneurs (i.e. they reported a rating of at least 5). Friends were expected to have a slightly more positive reaction (5.96) than close family (5.79).

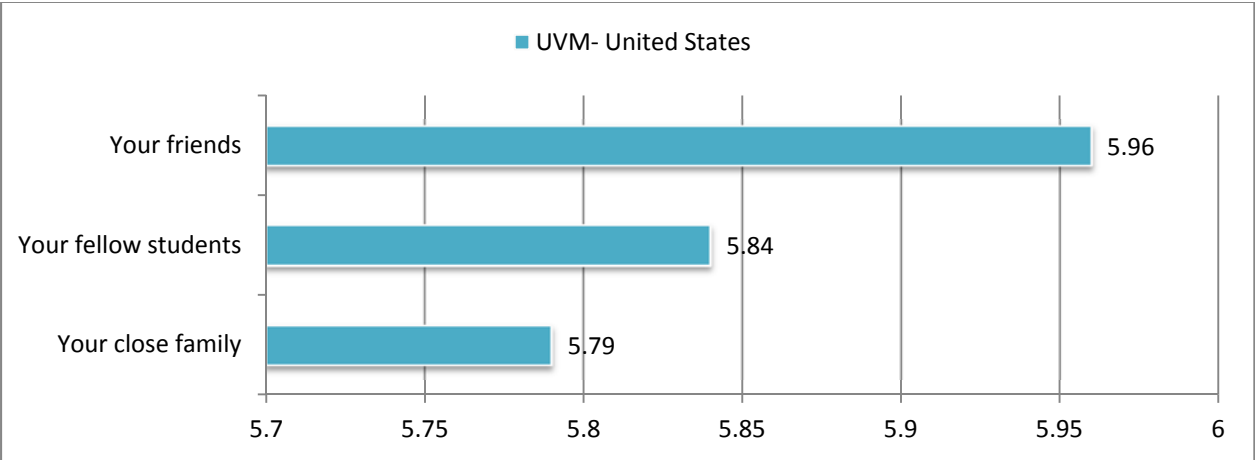


Figure 22: Participants' perception of the reactions of their social environments

3.5 Competencies

General self-efficacy refers to a person's belief about their level of competency in doing certain tasks (Johns & Saks, 2011). The higher their level of self-efficacy, the higher their motivation to take part in activities included in those tasks. Thus, measuring a person's level of self-efficacy with respect to entrepreneurial tasks may indicate their level of motivation in taking part in entrepreneurial activities. The results suggest that the average participant felt the most confident in their abilities to becoming a leader and communicator (they reported a rating of almost 6) (Figure 23). They felt the least confident in their ability to create new products and services for their businesses. In interpreting this finding, it is important to keep in mind that a large majority of the respondents had yet to take the entrepreneurship course. Nevertheless, it would seem that students feel pretty confident in their abilities to perform entrepreneurial tasks.

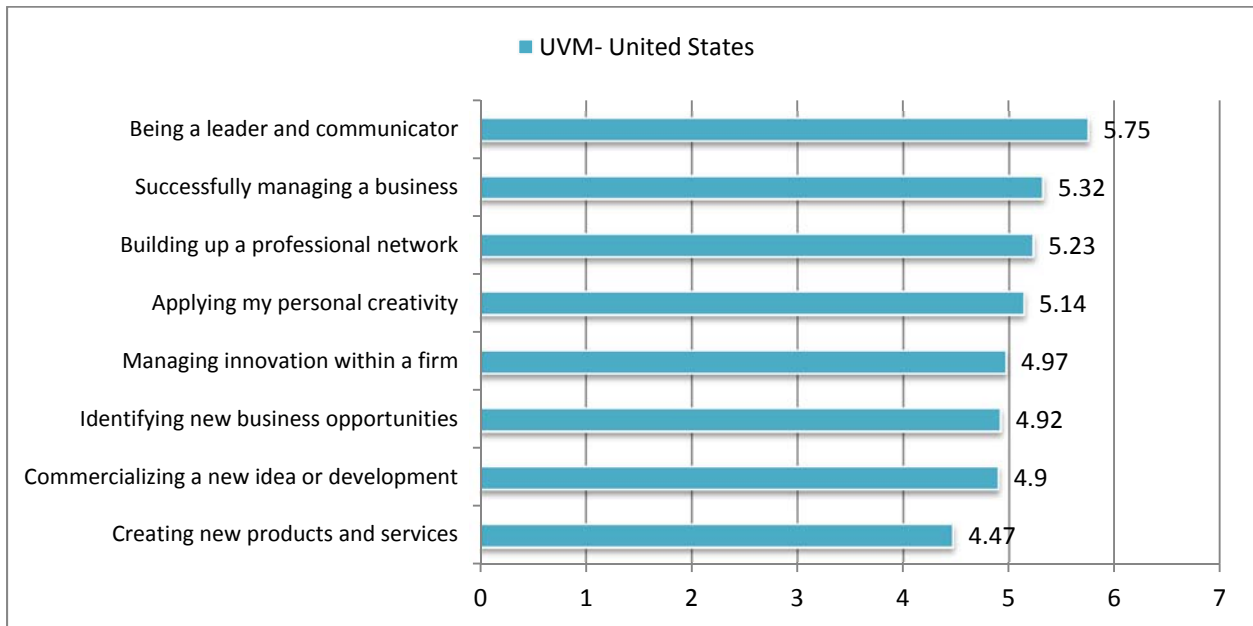


Figure 23: Participants' perception of their level of competence regarding their entrepreneurial skills

3.6 Risk tolerance

Risk perception has always been associated with the pursuit of entrepreneurial activities. To assess the risk perception of the participants, they were asked to indicate on a scale from 1 (strongly disagree) to 7 (strongly disagree) to what extent they agreed or disagreed with the statements indicated in Table 6.

Table 6: Items used to measure risk perception

Item number	Item
1	I consider starting up my own business to be very risky.
2	I think it is dangerous to manage your own business.
3	I believe that business ownership has high risk.
4	I am generally a person who is fully prepared to take risks.

Overall, participants did not seem very comfortable with risk since they rated most of the statements between 4.2 and 5.7, indicating that participants agreed with the statements (Figure 24). Results for UVM students are pretty similar to those obtained for the international sample. In fact, the mean value for the scale is almost identical (5.0 for the UVM sample and 4.7 for the international sample).

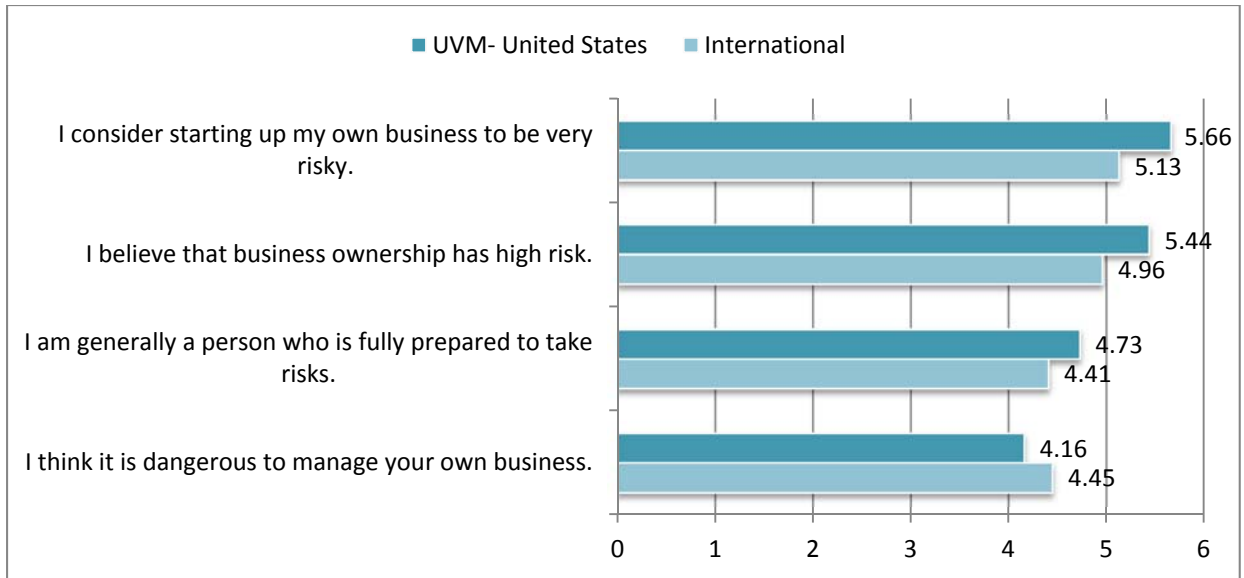


Figure 24: Comparing the risk perception between UVM and International samples

3.7 Summary

Overall, it would seem that right after graduation participants prefer to work in a medium-sized organization and very few participants intend to launch their own business or work within their family business. This trend changes five years later, when more participants indicate that they plan on becoming entrepreneurs. Males do not plan to become successors (even if they may have started working in their family businesses straight after graduation) and females plan to become successors and work in family businesses, but not in their own family businesses. The entrepreneurial intention of UVM respondents tends to be neutral, probably reflecting their low risk tolerance. Although entrepreneurial parents seem to influence the entrepreneurial paths of their children, participants report that their parents would not respond as positively as their friends to their decisions to become entrepreneurs.

4 Entrepreneurial activities

The second objective of the GUESSS project is to look at the activities students have undertaken to create their own businesses. Participants were divided into three sub-categories based on their activities: those who have not undertaken any activities (and thus are not included in this section), those who have indicated that they are currently trying to start a business (nascent entrepreneurs), and those who are already running their own businesses (active entrepreneurs). In this section, we assess and compare the latter two sub-categories (nascent and active entrepreneurs) to each other and to the international population.

4.1 Nascent entrepreneurs

The first type of entrepreneur to be assessed is the nascent entrepreneur. In this section we describe their general characteristics, and assess them based on their potential partners, planned industrial sector, the steps they have already taken in establishing their business and their expected parental support.

4.1.1 Business characteristics

Students were asked about whether or not they had intentions of starting their own businesses. Sixteen (17% respondents) indicated that they were currently trying to start their own businesses within six months (40%), between six to 12 months (20%) and between 19 to 24 months (40%) (Figure 25).

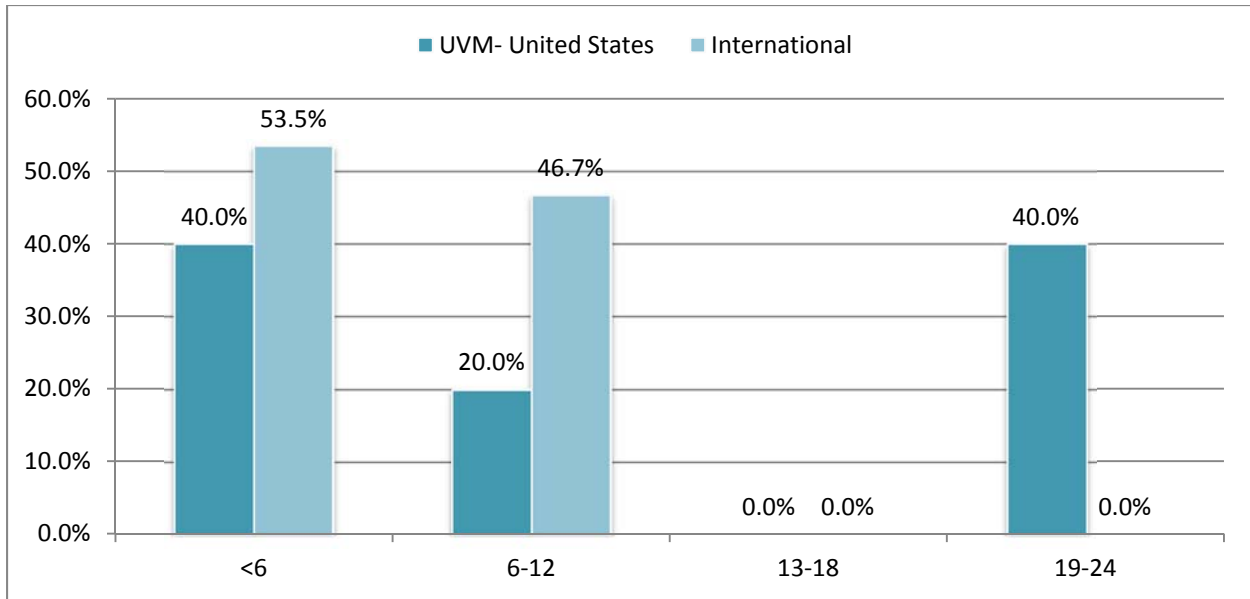


Figure 25: Students' intentions to start a business

Students were then asked about the types of products they aimed to bring to market. The majority (43.8%) indicated that they had aspirations to bring an entirely new product to market, i.e. a product all customers have yet to see (Figure 26). In contrast, the majority of respondents in the international sample (39.2%) indicated that their product will be new to a majority of customers. Perhaps this is the reason why the UVM sample aimed to set up their businesses relatively soon, in order to ensure they can benefit from the first mover advantage.

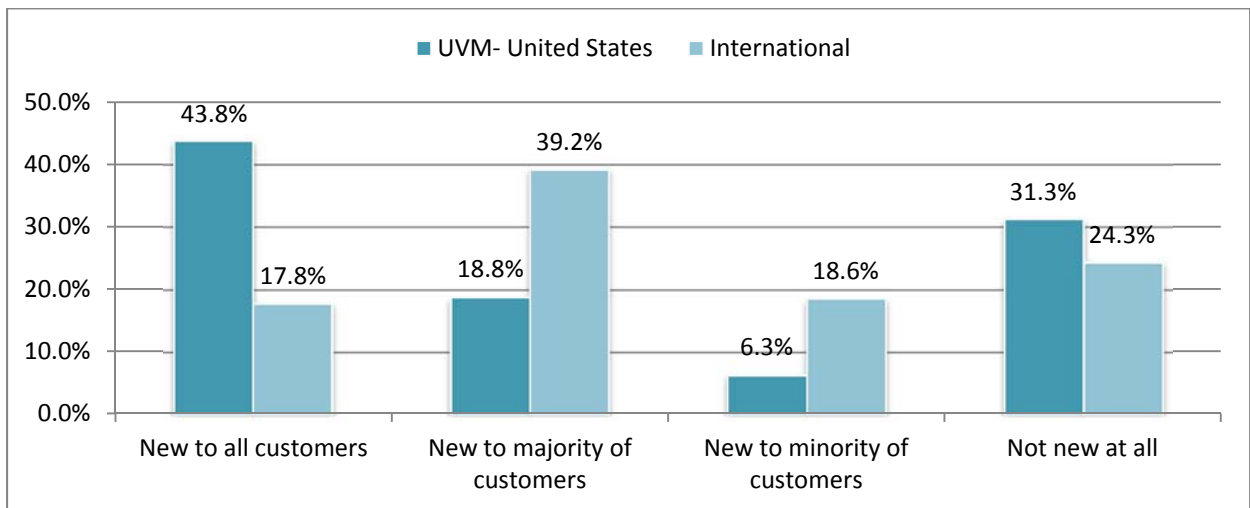


Figure 26: Type of products nascent entrepreneurs intend to bring to the market

Most (46.7%) of the UVM respondents indicated that they anticipated spending between 41 to 60 hours per week in developing their new businesses (Figure 27). The distribution of anticipated hours is different between the UVM and international sample. While the UVM sample looks to be a normal distribution that peaks at between 41 and 60 hours, the international sample tends to be relatively stable across the 21-100 hours per week.

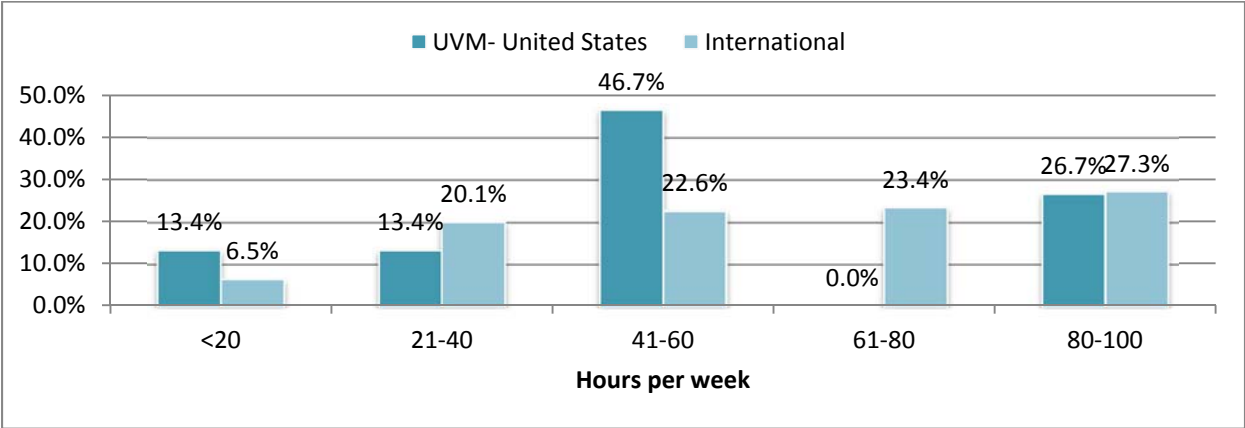


Figure 27: Nascent entrepreneurs anticipated hours spent on working in their businesses

In addition, 71.4% of nascent entrepreneurs expect to retain 50% or more equity in their new firms, suggesting that they will remain majority shareholders in their newly founded firms (Figure 28). Only 28.4% expect to become minority shareholders in the new firms they created.

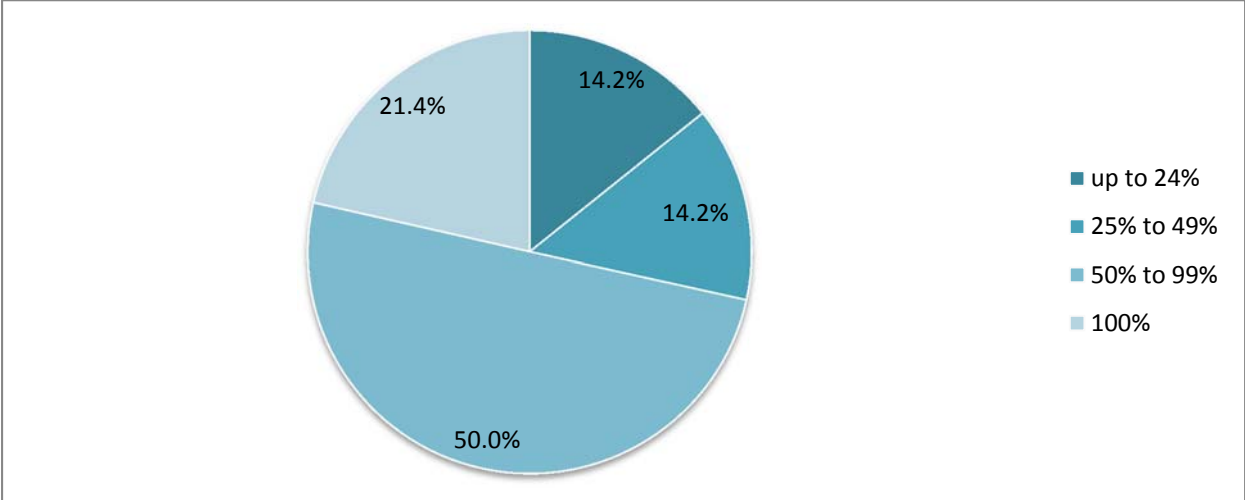


Figure 28: Expected equity in their new firm

4.1.2 Partners

Participants were asked about the number of co-founders they planned to have in their new business. Half the respondents indicated they may take 1 or 2 co-founders, while 37.5% planned to be sole owners (Figure 29). When participants were asked to indicate the source of their potential partners, 70% indicated that their potential partners would most likely be people they met in university. Other potential sources included their friends (67%), professional networks (63%), and family members (38%).

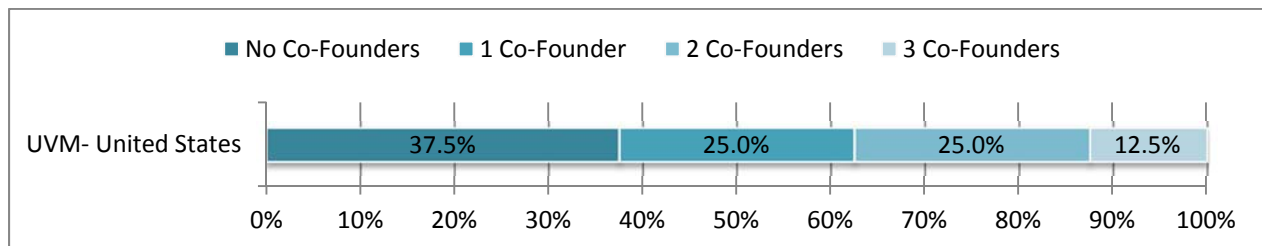


Figure 29: Number of co-founders nascent entrepreneurs plan to have

4.1.3 Industrial sectors

The participants were asked to indicate in which sectors they planned to establish their businesses (Figure 30). Over 30% indicated that it would be in the wholesale and retail business (i.e. trade), followed by advertising/marketing/design (18.8%). Except for the information technology and communication sector, where fewer UVM intend to start their venture compared to international students, the trends for nascent entrepreneurial businesses at UVM seem to follow those of international nascent entrepreneurs.

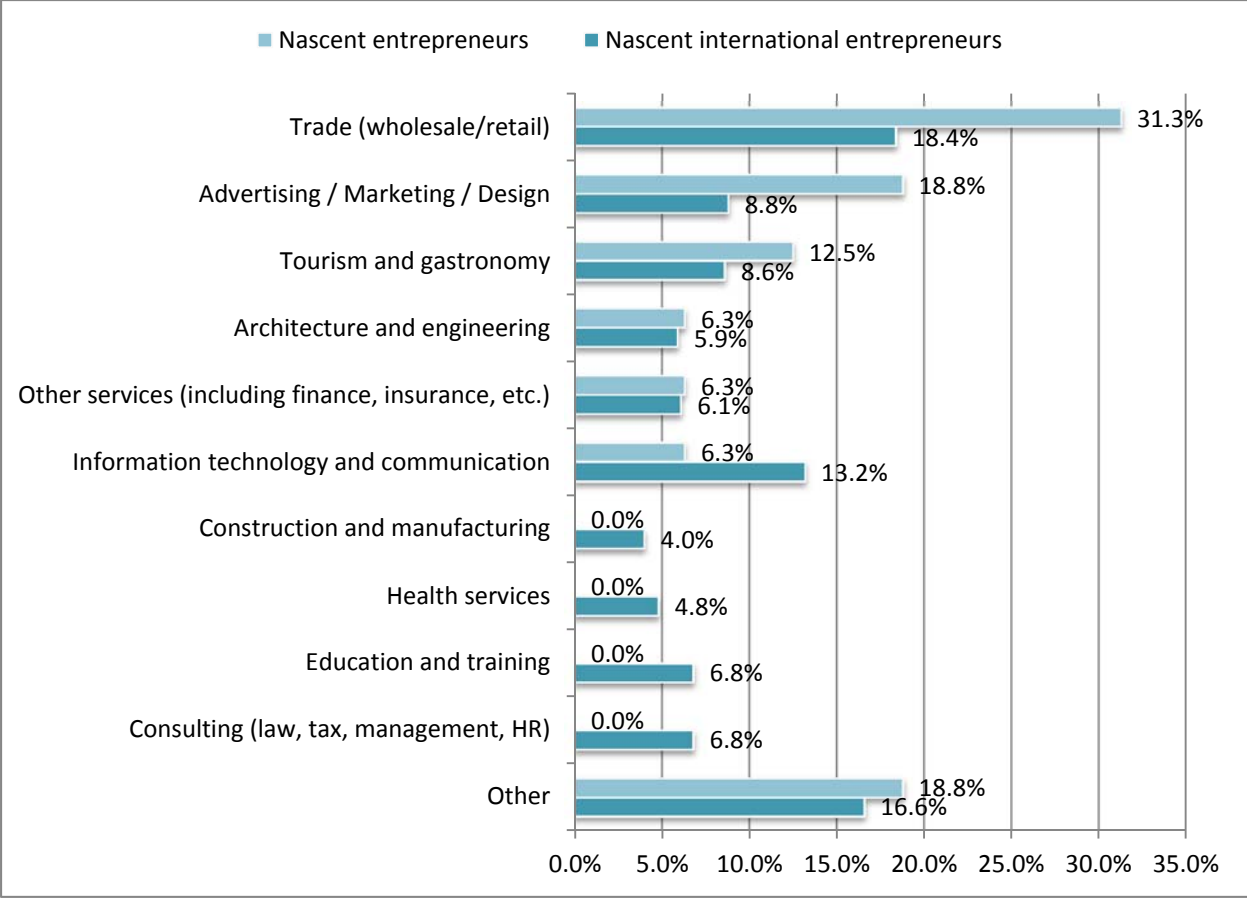


Figure 30: Comparing the planned sector of activity between nascent UVM and international entrepreneurs

4.1.4 Steps taken to found a new business

Businesses are established through a series of steps. The participants were asked to indicate the steps they had already taken to establish their new businesses (Figure 31). A large percentage (37.5%) of participants indicated that they had taken a few steps in establishing their businesses including: starting their product/service development, writing a business plan, collecting information, and discussing their business idea with potential customers. In addition, 31.3% also indicated that they had started promotional efforts for their businesses.

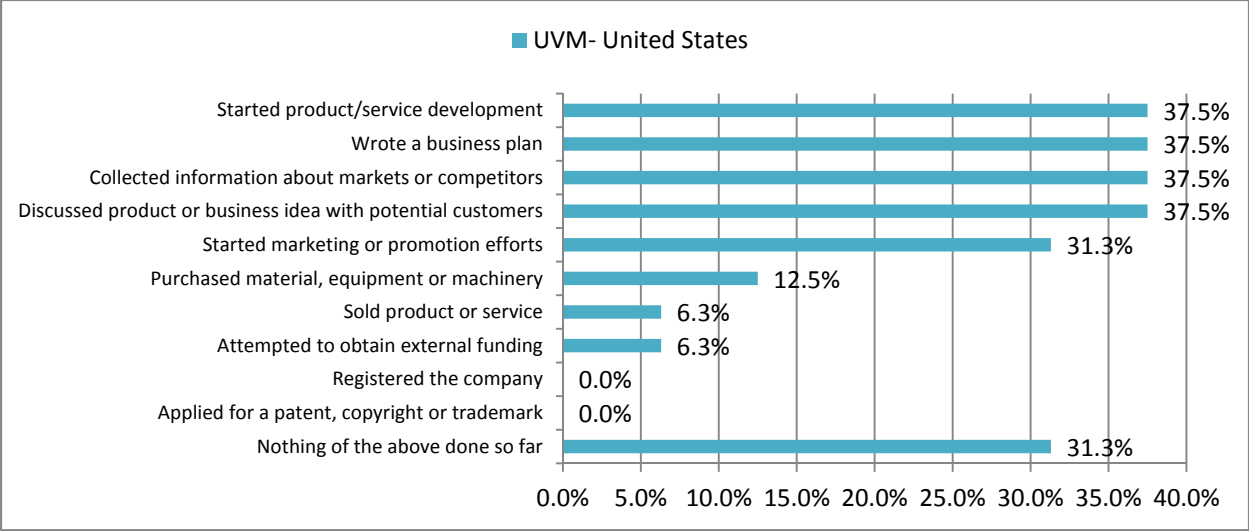


Figure 31: Steps taken by nascent entrepreneurs in establishing their businesses

4.1.5 Anticipated parental support

Participants were asked about the type of parental support they would expect to receive (Figure 32). On average the participants expected to get some support, since they indicated ratings between 3 (rather unsupported) to 5 (rather supported). Receiving knowledge and advice was the most common type of support expected, followed by contacts and networks (5.1). Financial resources were the least expected form of support.

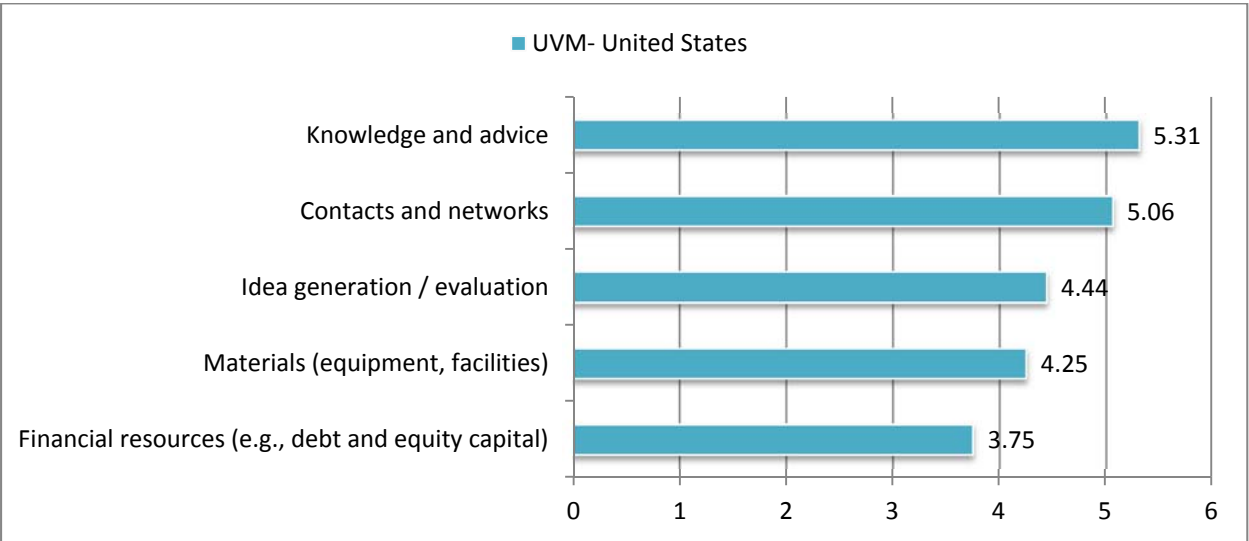


Figure 32: Anticipated parental support

4.1.6 Summary

In summary, nascent entrepreneurs at UVM reported that they had already put substantial efforts into developing their businesses. They anticipate starting their businesses relatively soon (within six months) and bring an entirely new product to the market. They also plan to work full time in their businesses. Most do not plan to be sole owners. These participants have undertaken a number of steps in establishing their businesses and expect to receive some support from their parents mostly in the form of knowledge and advice. They do not, however, expect to receive a lot of financial support from their parents.

4.2 *Active entrepreneurs*

Two respondents were already active entrepreneurs, i.e. running their own businesses and self-employed. These businesses were in the small business category since they indicated that they either were working alone or had fewer than 25 employees in the business. In both case, the active entrepreneurs reported that they maintained the majority equity in their businesses. Within five years, these entrepreneurs did not foresee a substantial growth in their businesses and indicated that they would remain in the small business category. The participants indicated that they spend fewer than 35 hours per week in their businesses, perhaps as a result of the time constraints placed on them as students. The active entrepreneurs indicated they had one co-founder or none, with the preferred source for co-founders being their circle of friends. The active entrepreneurs developed their businesses in the areas of “information technology and communication” and “advertising, marketing and design”. International active entrepreneurs reported that the most common sector was “trade (wholesale/retail)”, followed by “information technology and communication” and “advertising, marketing and design”. Active entrepreneurs reported that their firms did just as well as their competitors, and innovativeness was reported as being better than their competitors (Figure 33).

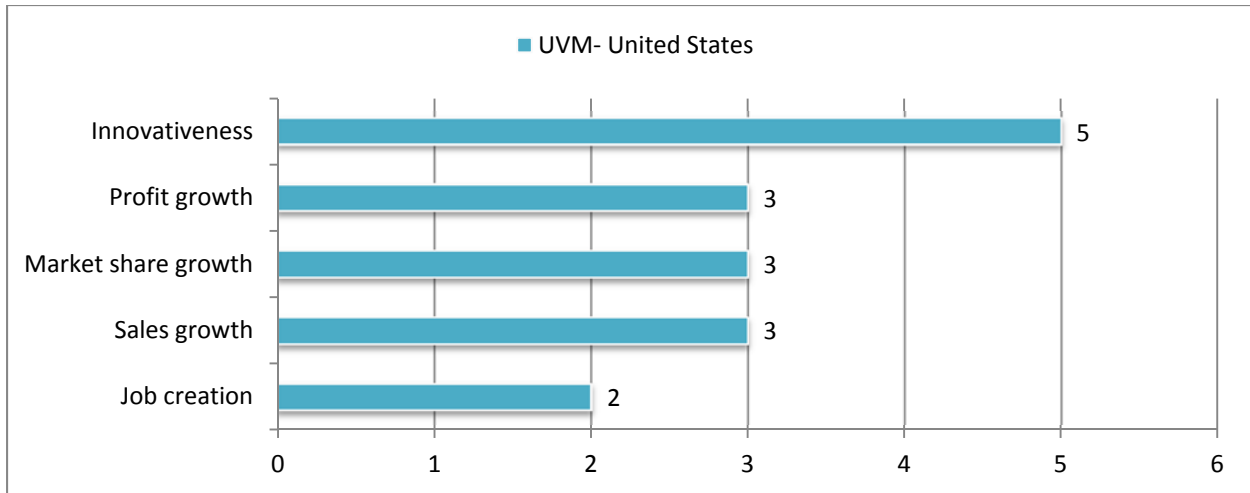


Figure 33: Actual firm performance

Whilst nascent entrepreneurs, as reported above, expected to get most support from parents in the form of knowledge and advice, active entrepreneurs reported that this was the area in which they received the least amount of support. Both types of entrepreneur expected to receive (nascent entrepreneurs) or received (active entrepreneurs) parental support in the form of contacts and networks.

4.2.1 Summary

Active entrepreneurs at UVM formed small businesses and did not foresee any significant growth within the next five years. They tended to spend fewer than 35 hours per week on their businesses and maintained the majority of their equity. They received some support from their parents in the form of contacts and networks in the industrial sector of information technology and communication and advertising, marketing and design.

5 Family businesses

The families of most entrepreneurs tend to influence their entrepreneurial spirit. In fact, the family has been described as an incubator that nourishes the next generation of entrepreneurs (Hoy & Sharma, 2010). This section will focus on the 45 respondents who, as reported in Section 3.4.2, have a family business (i.e. parents who run their own business or are self-employed). We will address the family business's impact on the student's entrepreneurial spirit by first describing the general characteristics of the family business, and then looking at the industrial sectors they work in, the family businesses' performances, the students' relationship with their family business and their thoughts about succession within their family business.

5.1 General characteristics

In general, most of the respondents (81.0%) said their parents own one business (Figure 34).

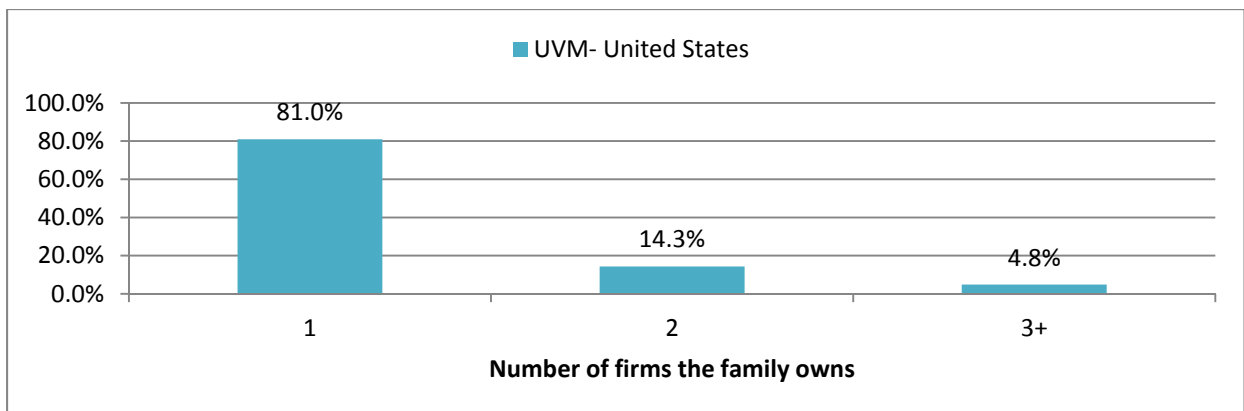


Figure 34: Number of family businesses

Participants were asked to indicate for how many years the family has owned the business. The majority (34.0%) said their parents had owned the firm for between 11 to 20 years (Figure 35).

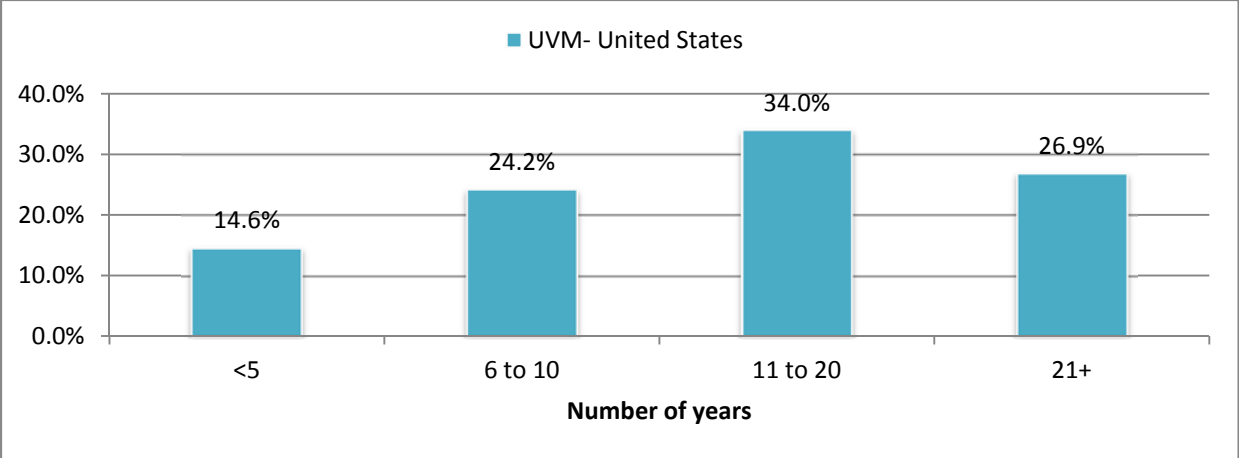


Figure 35: Number of years the firm is owned by the families

83.3% of participants indicated that a family member had created the business (Figure 36). Moreover, 97.6% of parents were operationally involved in the business. Furthermore, 73.2% indicated that either the father or the mother was the CEO of the business.

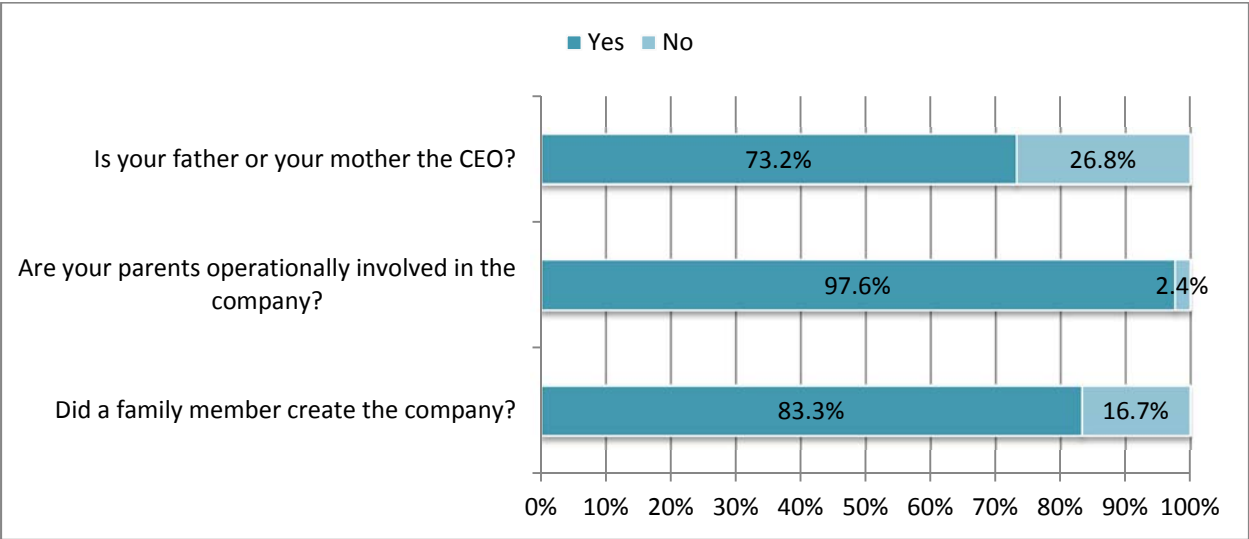


Figure 36: General information about the family business

In 55% of cases respondents reported that 100% of equity was in the hands of their family (Figure 37). Most respondents (76.9%) said that their personal share of equity in the business was less than 24%.

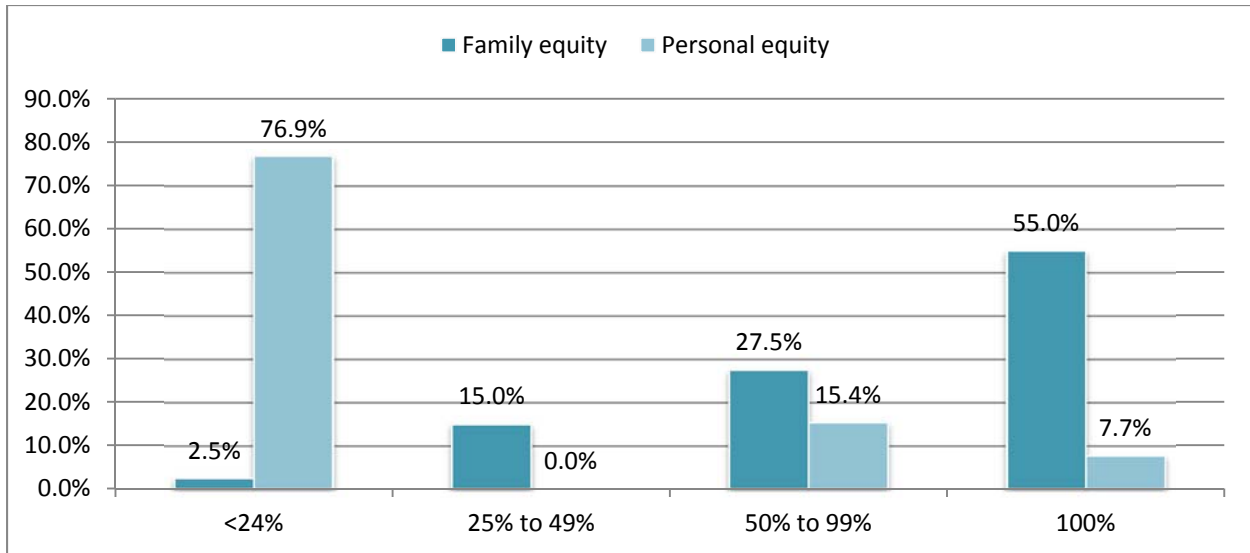


Figure 37: Family and personal equity within the family business

Around 95% of participants reported having small family businesses, with 50 or fewer employees. Out of respondents whose parents own a business, 35.7% reported they were working in the business. Of these, 61.5% indicated that they had started working for their family businesses when they were 15 years old or younger. Moreover, 33% indicated that they had worked for less than one year in their family business, while 50% indicated that they had worked for more than two years.

5.2 Industrial sector

The three largest categories for the industrial sector of the family business (Figure 38) were construction and manufacturing (21.4%), trade (wholesale/retail) (11.9%) and other services including finance and insurance (11.9%).

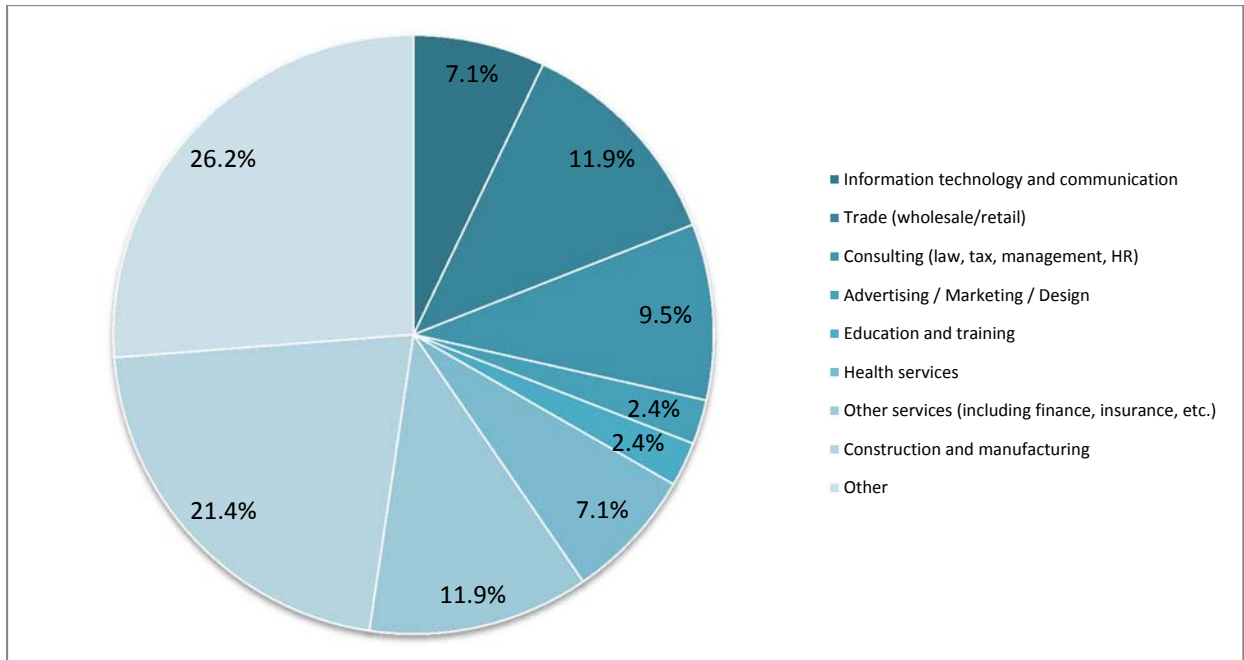


Figure 38: Family business sector of operation

5.3 Family business performance

Participants were asked to rate the performance of their family businesses along certain criteria with respect to their competitors, ranging from 1 (much worse) to 7 (much better) (Figure 39). Results indicate that the participants believed that their family businesses performed just as well as their competitors, if not better (4.64).

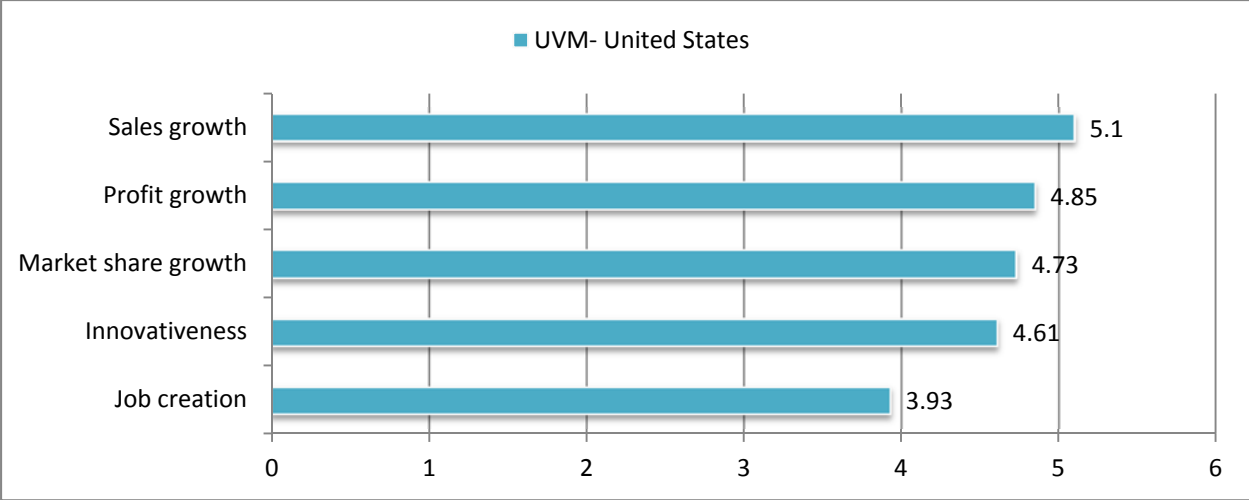


Figure 39: Family business performance

Looking at each aspect more closely (Figure 40), we notice that most participants thought that profit growth was the category in which their family businesses performed “better” or “much better” than competitors. Instead, most participants thought that innovation was the category in which their family businesses performed “worse” or “much worse” than competitors.

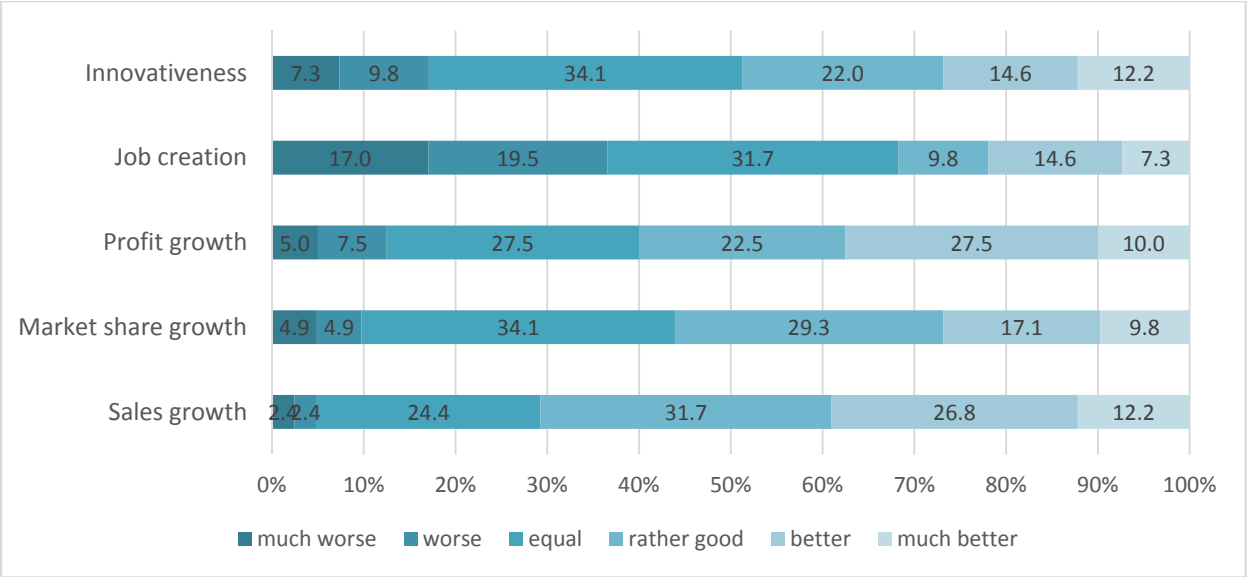


Figure 40: Detail of family business performance

5.4 Relationship with the firm

When participants were asked to describe their relationship with their family business, on average, they described their relationship as being satisfactory to slightly positive (4.55) (Figure 41). They felt that they had a positive emotional connection with the family business and good financial insight into the firm. They also felt the need to ensure that the family business stays within the family in the long run.

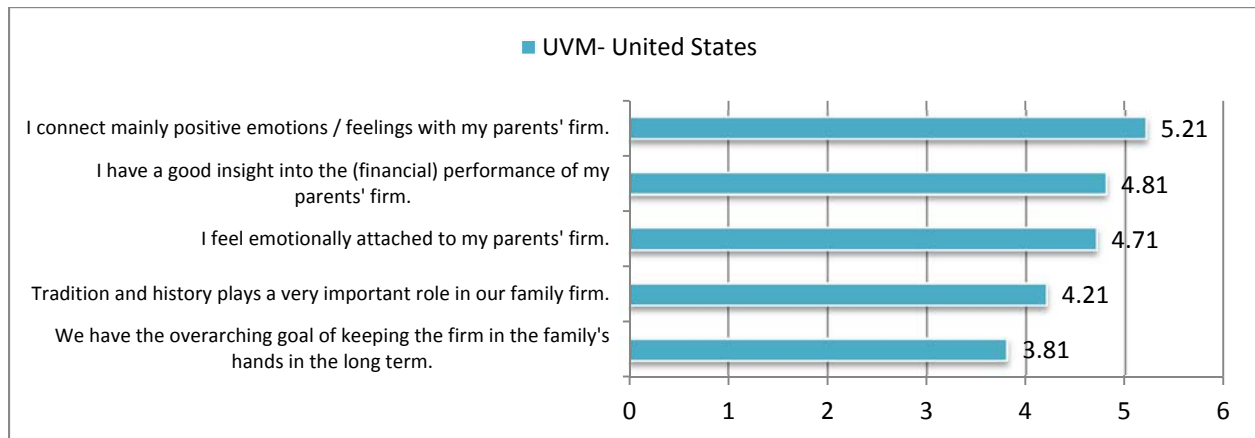


Figure 41: Participant's relationship with their family business

5.5 Thoughts about being a successor

On average, participants indicated that they rather disagreed with the statements that becoming a successor to their family businesses was a desirable career option for them (Figure 42). Although participants indicated that they felt they had a positive relationship with their family business (as described above), this did not alter their desire to become successors for their family business. This is further supported by the fact that participants also disagreed with the statement that keeping the family business within the family was a goal for them (as described above).

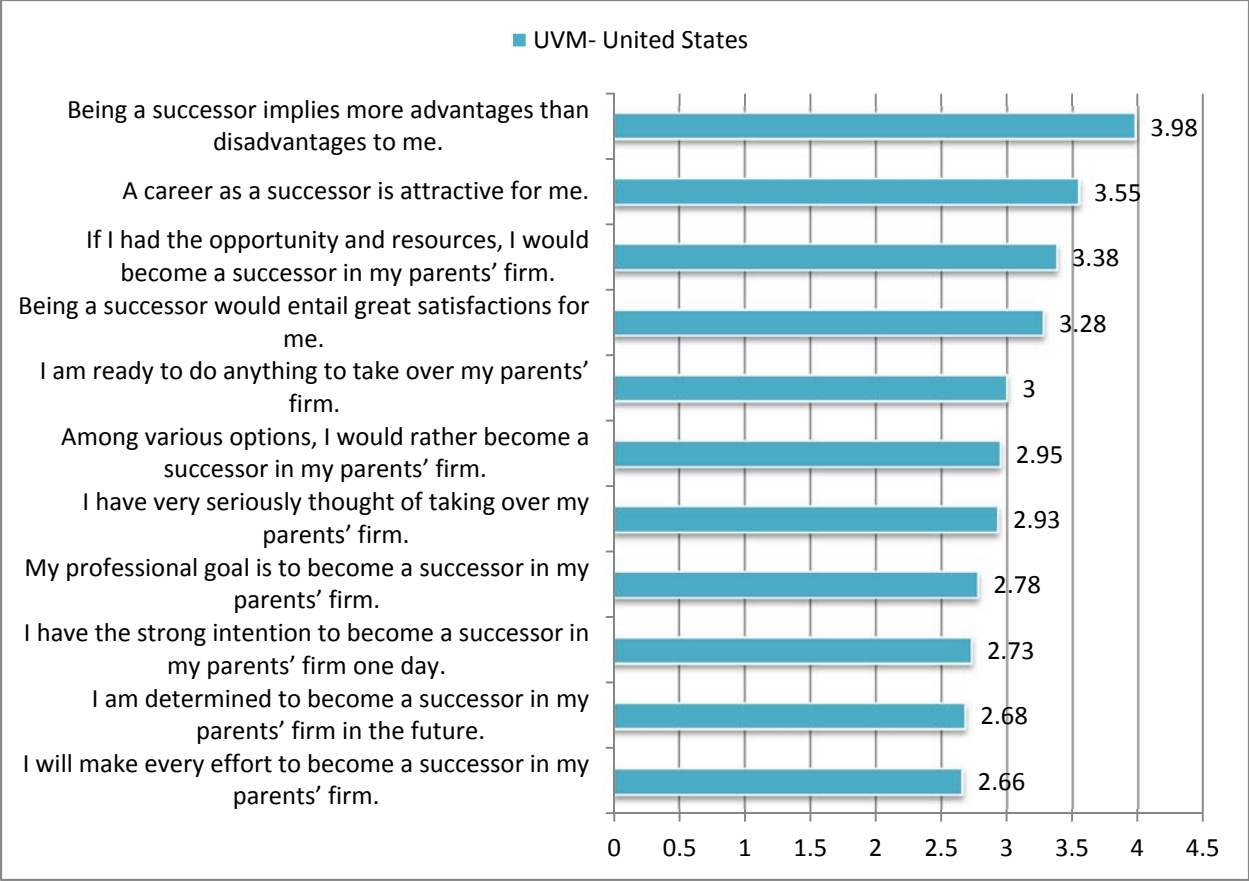


Figure 42: Participants' intention to become successors in their parents' family business

5.6 Summary

In summary, the family businesses described by the participants seem to be small, family owned businesses. Most of them have been in business for several years. In terms of performance, the participants felt that their family businesses were fairly comparable to their competitors. Despite the connection the participants feel with their family businesses, they did express the intention of becoming a successor in their family business.

6 Summary and recommendations

This section summarizes the key findings for the UVM edition of the 2013 GUESSS project.

6.1 Key insights

The purpose of the GUESSS project is to study the entrepreneurial intentions and activities of students. To this effect, there are a few notable interpretations that should be mentioned.

- The pattern established by other editions of the GUESSS project of students becoming employees first and then becoming entrepreneurs later in their careers was also observed in the UVM sample. More specifically, it was observed that although 6% of students started as entrepreneurs, this number jumps to 31% five years later.
- The entrepreneurial intention of UVM students was slightly higher than the international average, and our data also indicate that male students showed higher entrepreneurial intentions than female students.
- “Realizing a dream” and “having an exciting job” were the two most important reasons to pursue entrepreneurship as a career.
- The entrepreneurial context was perceived by students as being somewhat supportive to their entrepreneurial interests, consistent with the literature. With respect to the social context, it would seem that more of the support needed to encourage entrepreneurship comes from friends rather than the family.
- UVM students seem to have a rather high general self-efficacy with respect to their ability to perform entrepreneurial tasks. However, they do not seem to be very comfortable with risk.
- Nascent entrepreneurs at UVM plan to form sole-ownership type firms. The businesses are expected to be quite innovative as the majority of nascent entrepreneurs report their intention to bring entirely new products to their customers.
- The family businesses in this sample tend to be small businesses. Although the students surveyed indicate that they feel connected towards their family business, they do not want to be its successors.

6.2 Recommendation

Based on the results of the UVM edition of the GUESSS project survey, a few recommendations could be made.

- Universities
 - Our results indicate that a high number of students have not taken any entrepreneurship classes. Consequently, there seems to be a need to more to promote entrepreneurship within the university.
- Students
 - In general, the skills learned by taking entrepreneurship classes may be beneficially regardless of the career path eventually chosen. In addition, since the entrepreneurship intention among students is present, it is beneficial to start to prepare, given the opportunity.
- Public
 - Not many students aspire to become entrepreneurs. Given the benefits entrepreneurs have on society and the economy, there appears to be a need to encourage entrepreneurship more, particularly among females.
- Researchers
 - Given the results of this first UVM edition of the GUESSS project, future collaboration should be quite beneficial in tracking the entrepreneurial intentions of the population. In addition, there is a need to focus on encouraging active entrepreneurs to participate in order for this subset of the population to be properly represented.

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