

IRISH SURVEY ON COLLEGIATE ENTREPRENEURSHIP 2006



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Preface

ISCE stands for **International Survey on Collegiate Entrepreneurship** – an international research project investigating Academic Entrepreneurship. The goal of this project is to examine, explain and discuss the behaviour and intentions of students in their decision to start entrepreneurial activities and to found an enterprise. The project is coordinated on an international level by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) together with the KfW Endowed Chair for Entrepreneurship at European Business School (ebs). On a national level, the project was coordinated by Dr Naomi Birdthistle of the Department of Management and Marketing at the Kemmy Business School, University of Limerick

This study presents some encouraging findings concerning entrepreneurship in Ireland. The study identifies that entrepreneurship is a potential career option for students either directly after completing their studies or within 5 or more years after graduation. Furthermore, the study highlights that Irish students display a number of skills and competencies necessary for entrepreneurship. However, the study does identify areas of improvement such as the development of selling skills; making students aware of the sources of funding available in Ireland and the incorporation of non-business students into the entrepreneurship classroom.

Table of Contents

| | |
|--|-----------|
| Preface | ii |
| 1 Introduction | 1 |
| 1.1 Interest and goal of the Survey | 1 |
| 1.2 Methodology | 3 |
| 1.3 Sample and Representativeness..... | 4 |
| 2 Entrepreneurial Activities and Goals | 7 |
| 2.1 Universities in Comparison | 7 |
| 2.1.1 General Goals After their Studies..... | 10 |
| 2.1.2 The Creation of a Firm | 122 |
| 3 The Macroeconomic Background for Entrepreneurial Activities | 16 |
| 3.1 The Climate and Premises at the Universities | 16 |
| 3.2 Lectures about Entrepreneurship..... | 16 |
| 3.3 Support-Possibilities for Creating a Company | 17 |
| 4 The Personal Background for Entrepreneurial Activities | 18 |
| 4.1 The Personality..... | 18 |
| 4.2 Locus of Control..... | 22 |
| 4.3 Motives..... | 23 |
| 4.4 Skill and Competencies | 25 |
| 4.5 Family-Background..... | 27 |
| 5 Hurdles Facing a Company | 29 |
| 6 Conclusions and Recommendation | 31 |
| Appendix I Countries Involved in the Study | |

Table of Tables

| | | |
|----------|--|----|
| Table 1 | Level of Studies and Name of Tertiary Level Institution | 8 |
| Table 2 | Field of Study Respondents are Majoring in. | 9 |
| Table 3 | Paid Employment | 10 |
| Table 4 | Self-Employment | 12 |
| Table 5 | Thought of Building Their Own Business | 12 |
| Table 6 | Steps Taken in Starting a Business | 13 |
| Table 7 | In which Industry have you or are you Planning to Start-up your Business | 14 |
| Table 8 | Respondents Extroversion | 18 |
| Table 9 | Respondents Compatibility | 19 |
| Table 10 | Respondents Conscientiousness | 20 |
| Table 11 | Respondents Emotional Stability | 20 |
| Table 12 | Respondents Culture | 21 |
| Table 13 | Locus of Control | 22 |
| Table 14 | Respondents Motives | 23 |
| Table 15 | Skills and Competencies of Respondents | 26 |
| Table 16 | Greatest Hurdles for Starting Up a Business | 29 |

Table of Figures

| | | |
|-----------------|--|-----------|
| Figure 1 | Framework of the study | 3 |
| Figure 2 | University Respondents were Studying At | 6 |
| Figure 3 | When Do You Consider the Foundation of a Business | 13 |
| Figure 4 | Climate and Conditions that Help Start a Business | 16 |
| Figure 5 | Did you Grow up in an Entrepreneurial Family | 27 |
| Figure 6 | Feelings they Connect with their Family Business | 27 |

1 Introduction

1.1 Interest and goal of the Survey

Ireland is a small open economy, which is dependent on international trade. It has a population of approximately 4 million people and an area of 7,027,308 hectares. The Irish government has begun to focus on the development of smaller domestic firms as a source of future growth, which makes sense given the relevance of enterprise to the Irish economy. This is shown in figures such as over 97 per cent of businesses operating in Ireland today are 'small' – they employ fewer than 50 people. There are approximately a quarter of a million small businesses in Ireland, employing 777,000 people (Small Business Forum, 2006).

According to the 2005 Global Entrepreneurship Monitor (GEM) Report for Ireland it was found that some 112,000 individuals have recently set up new businesses (Fitzsimons and O’Gorman 2006). A further 137,000 are at the advanced stages of getting a new business off the ground. Therefore, almost one in ten of the adult population living in Ireland is actively planning or has recently established a new business, which is equivalent to almost 250,000 individuals. According to the 2005 GEM Report, Ireland has maintained its leading position within Europe in terms of its early stage entrepreneurial activity. Furthermore, Ireland has closed the gap on the most entrepreneurial OECD countries. In terms of established entrepreneurs, Ireland has a higher proportion of established entrepreneurs than the US and is broadly at the same level as New Zealand and Canada (Fitzsimons and O’Gorman 2006). Additionally, Ireland is ranked third across the 25 participating EU and OECD countries concerning people’s perception of good opportunities for entrepreneurial initiatives. Finally, in relation to having recent entrepreneurs among their personal networks and in respect of their belief in their being in possession of the necessary skills to start a new enterprise, Ireland’s adult population is ranked 7th and 8th respectively across the EU and OECD countries.

According to the Small Business Forum (2006), small businesses in Ireland account for over 70 per cent of gross value added (GVA) in Construction (around €7.2 billion), over 40 per cent of GVA in Services (€15 billion – excluding financial services), and 34 per cent of GVA in indigenous Manufacturing (€2.1 billion). Small businesses form an essential part of the supply chain for larger firms and in particular are part of the support infrastructure needed to attract and retain foreign investment. The performance of the small business sector is thus an important contributor to the overall quality of life and standard of living in the country (Small Business Forum, 2006). Encouraging entrepreneurship education is therefore high on

the agenda of the Irish government as entrepreneurs are catalysts of growth, generating capital, innovation and skills.

The study being reported here is part of an international study on collegiate entrepreneurship. The study emanates from a project that was conducted in 2003 by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) in coordination with a student initiative called 'START'. The goal of the original study was to create a clear picture of students' career aspirations and future goals and plans. The focus was therefore on the evaluation of a foundation which students built to assess and decide what field they were going to study. A project with similar goals was being conducted in Germany by the European Business School (EBS) during the same time. In 2004 the KMU-HSG worked together with the KfW Endowed Chair for Entrepreneurship at the European Business School (EBS) to revise and re-launch another survey. Since the same questions, scales, methods and constructs were used across different countries and universities, a tangible comparison of tendencies and trends was made.

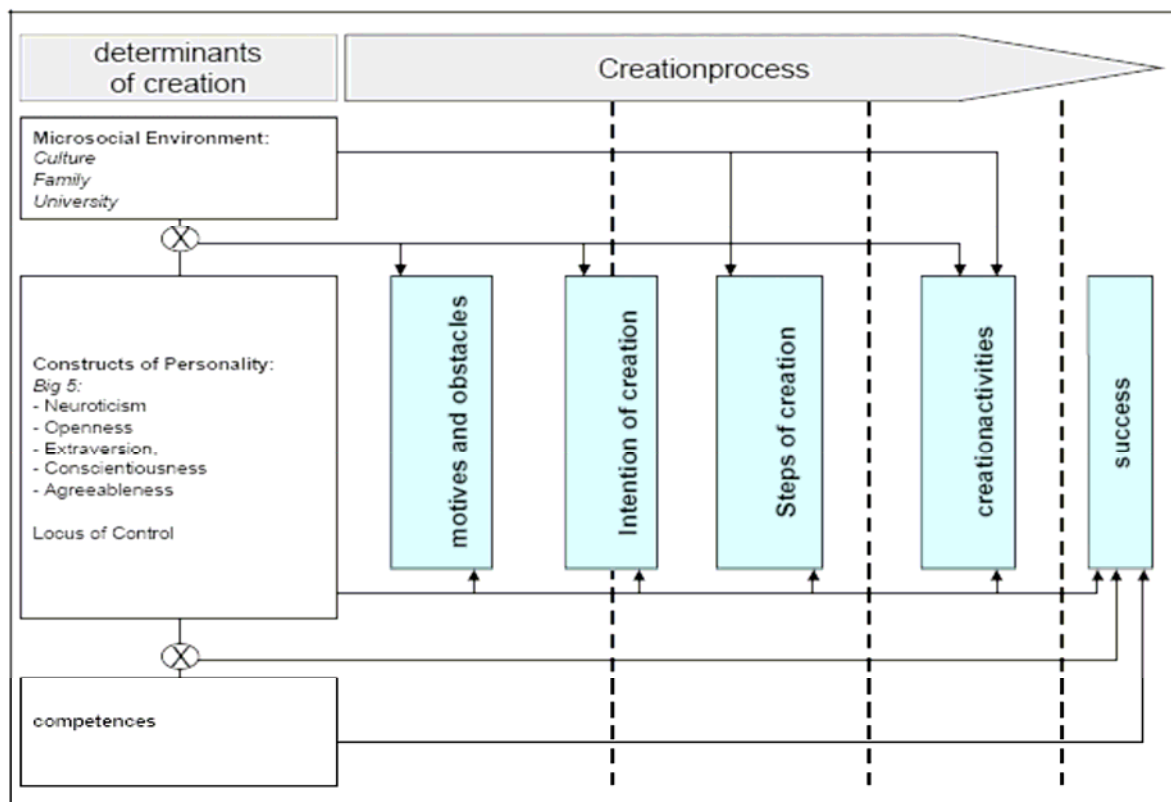
Since Ireland depends on its nation being entrepreneurial for its economic growth and development, it is important to understand the career objectives of students at tertiary level in Ireland and the propensity of these students to establish a business or be self-employed sometime in the future. This therefore led to the participation in this study. The overall goal of this study is to examine, explain and discuss the behaviour and intentions of students in their decision to start entrepreneurial activities and found an enterprise. The objectives for this national report are therefore four-fold:

1. To determine start-up activities and career intentions of students.
2. To grasp start-up difficulties and processes.
3. To understand the qualitative importance of the start-ups (e.g. workplace, turnover).
4. To provide empirical proof on:
 - o Personal characteristics: demographic data, personality, motives and abilities.
 - o Macro-economic characteristics: course offerings, business sentiment.

1.2 Methodology

As mentioned previous the study conducted in Ireland is part of an international study on collegiate entrepreneurship. This report will present the findings of the Irish results however a final report is being written by the University of St. Gallen and the European Business School (ebs), which reports the overall world-wide findings and can be found on the following website: www.isce.ch. Fourteen countries participated in the international collegiate entrepreneurship study (see Appendix I for the list of countries that participated in the international study). The coordinators of the study – the University of St. Gallen and the European Business School (ebs) - devised a standardized questionnaire to be used by all research partners. The questionnaire was administered using an Internet-based questionnaire in three languages: German, French and English. All information was received anonymously. Figure 1 below identifies the framework of the study.

Figure 1 Framework of the Study



The study involves two main stages of examination. Firstly the study examines the 'determinants of creation'. Within this stage there are three sections. The first section examines the micro-social environment, which examines the culture, family and the university the respondent attends. The next section examines the constructs of personality.

This section of the questionnaire was influenced by the personality model of Schallberger and Venetz (1999). The constructs are divided into two sections. Section one was given the title of the 'Big 5' which consisted of: neuroticism; openness, extraversion, conscientiousness; and agreeableness. The second construct of personality examined the respondent's locus of control. The model that influenced the locus of control section of the questionnaire was that of Krampen (1991).

The second stage of examination was that of 'creation process'. This stage has four elements to it. The first element of the creation process examined the motives and obstacles the respondents faced in establishing or planning a business. This element of the questionnaire was influenced by findings from the study conducted by the University of St. Gallen in 2003 and KwF's study in 2004 and Kolvereid (1996). This involved examining the degree of importance of independence; leisure time; creativity, solution orientation and safety orientation. The second element of the creation process was the intention of creation which was examined by questioning the respondents on the various hurdles they face or believe they may face on starting up a business. The third step of the creation process examined the entrepreneurial intention, steps and activities for starting up a business by the respondents. This step of the creation process was influenced by the model of skills and competencies by Grichnik and Hisrich (2005). Creation activities was the final step of the creation process which examined the steps the respondents have taken or will take in establishing their business.

1.3 Sample and Representativeness

Tertiary education in Ireland has a long history and an excellent reputation globally. In the academic year 2003/2004, 143,271 students were enrolled in full-time third level courses, which is one of the highest rates in the developed world (Department of Education and Science, 2006). There are four elements to the system of higher education in Ireland: the university sector, the technological sector, the colleges of education and the independent colleges. The first three of these are public and funded by the state. There are seven universities in Ireland: The University of Limerick; University College Dublin; National University of Ireland, Galway; National University of Ireland, Maynooth; The University of Dublin (Trinity College); University College Cork; and Dublin City University. These universities are mainly involved in the delivery of undergraduate and post-graduate degree programmes; at undergraduate level, teaching is given in the form of lectures backed up with tutorials, practical work and the writing of a thesis. Masters degrees involve more

course work and research, and doctorates are research-based. Universities in Ireland award their own degrees and the Higher Education Authority, which works on behalf of the Department of Education and Science, oversees the system.

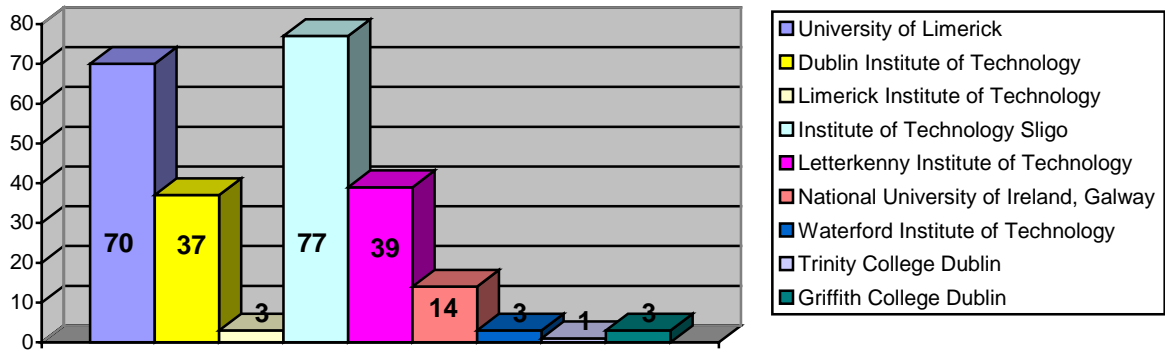
Within the Technological Sector (also known as Institutes of Technology) the Department of Education and Science has responsibility for this sector, which comprises fourteen Institutes of Technology, some of which were upgraded from Technical Colleges in the late 90's. The qualifications offered by these institutes have international recognition. They offer a wide range of courses from certificate level up to PhD. Ireland is an important player in the high tech industry such as computer software and pharmaceuticals and its technological learning facilities reflect this status; the science, technology and business departments are central components in Institutes of Technology.

An important part of the tertiary system of education in Ireland is the private sector; this comprises a wide range of at least twenty-five colleges validated by the Higher Education and Training Awards Council (HETAC). The courses offered by these institutions include a large number in the professional fields such as law, business, medicine and accountancy, as well as those in the humanities, tourism and catering. Some independent colleges are linked with public sector institutions, which provide accreditation for the courses, and the National Qualifications Authority oversees all accreditation in Ireland.

Colleges of Education offer courses for those wishing to become primary school teachers in Ireland. Secondary school teachers study at university to degree level and then take a yearlong education diploma.

For the purpose of this study, three sectors of the educational system were utilised for the administration of the Internet-based questionnaire, those being universities, Institutes of Technology and private educational colleges. Figure 2 below identifies the location of the respondents who completed the questionnaire. A total of 248 responses were received.

Figure 2 University Respondents were Studying At



As Figure 2 illustrates above, the university sector was represented by respondents from the University of Limerick, The University of Dublin (Trinity College) and the National University of Ireland, Galway. Respondents from the technological sector were spread across Ireland with respondents representing Institutes of Technologies from Dublin, Limerick, Sligo, Letterkenny, and Waterford. The private/independent sector was represented by respondents from Griffith College in Dublin.

2 Entrepreneurial Activities and Goals

2.1 Universities in Comparison

In order to understand the level of enterprise education currently offered at tertiary level in Ireland, it is necessary to outline an exact definition of enterprise education. The universal aim of enterprise education in tertiary level education institutions is to help young people develop skills and attributes that allow them to be innovative and to identify, initiate and successfully manage personal and work opportunities, including working for themselves. Furthermore, enterprise education is about helping young people make things happen, being creative and finding opportunities for themselves. It develops young peoples' entrepreneurial skills, attributes and an awareness of how their community, including business and industry, works. Undertaking enterprise education encourages the development of skills and attributes that employers are looking for, such as teamwork, commitment and flexibility. It provides an insight into the potential of becoming self-employed. Enterprise education also helps to develop a deeper understanding and awareness of business and working life within students. Enterprise education can aid young people to choose the most suitable path for them. It broadens the student's knowledge base of available options outside of the normal academic options acquired from secondary education.

Recently, the Irish government has identified the importance of enterprise education and this was evident from the report – *Ahead of the Curve* – written by the Enterprise Strategy Group (2004). The report states that in a modern society, education should satisfy social, cultural and economic needs. From an enterprise perspective, the ability of the education system to respond to economic and social change is critical to the supply of appropriate skills for the effective functioning of the economy, thus they advocate developing education to its highest potential. The report suggests three critical areas of focus for Ireland:

1. A responsive higher education sector is necessary to create and exploit knowledge and to produce quality graduates necessary to support the knowledge economy.
2. Upskilling the existing workforce and raising education levels is essential in an environment of constant change.
3. Efforts will have to be made to expand the workforce to meet growth forecasts and an appropriate skills based immigration strategy will be required to deal with demand for skilled workers that cannot be satisfied from within Ireland or the EU.

Tertiary level educators in business and entrepreneurship argue that entrepreneurship education is fundamental for fostering lifelong learning for both students and for those already in business (Doyle 2006). Many of Ireland's universities and IT's now have designated faculties and courses, such as MBAs and postgraduate courses in entrepreneurship to nurture people to become better managers while also directing aspiring entrepreneurs to get on the business track. On an all-island basis, both universities and IT's are also increasingly engaging on both research interchange and staff consultation and in incubating businesses while also fostering enterprise spin-outs. At tertiary level, entrepreneurship education is infiltrating into all faculties as teachers are acknowledging how students, regardless of their course, need to explore enterprise opportunities and to become more inventive in their thought processes while at the same time translating this knowledge into clear enterprise action upon graduation. The spin offs of entrepreneurial education at tertiary level is that students become more inventive, are enthusiastic about exploring opportunities and learn to become more enterprise driven, whatever their chosen field.

Table 1 below identifies the breakdown of the levels of studies the respondents are at and the location of the tertiary level education.

Table 1 Level of Studies and Name of Tertiary Level Institution

| | Undergraduate | Masters | Doctorate |
|-------------------------|----------------------|------------------|------------------|
| University of Limerick | 30.4% (69) | | 16.7% (1) |
| Dublin IT | 16.3% (37) | | |
| Limerick IT | 1.3% (3) | | |
| IT, Sligo | 31.7% (72) | 26.7% (4) | 16.7% (1) |
| Letterkenny IT | 15.9% (36) | 13.3% (2) | 16.7% (1) |
| Griffith College Dublin | 0.4% (1) | 20% (3) | |
| Trinity College | | | 16.7% (1) |
| NUI, Galway | 3.5% (8) | 40% (6) | |
| Waterford IT | 0.4% (1) | | 33.3% (2) |
| Total | 100% (227) | 100% (15) | 100% (6) |

As Table 1 above illustrates the majority of respondents were studying at undergraduate level. All undergraduates who responded to the questionnaire were studying full-time. The remaining respondents were studying at postgraduate level. All Ph.D. respondents identified they were completing their studies on a part-time basis. The respondents at Graduate/Masters level were a mixed response of studying full-time and part-time. Respondents were questioned as to which field of study they were pursuing and Table 2 below illustrates the results.

Table 2 Field of Study Respondents Are Majoring In

| Subject | Frequency | Valid Percent |
|---------------------------------------|------------------|----------------------|
| Economics | 23 | 9.3% |
| Business Studies | 133 | 53.6% |
| Business Information Systems | 10 | 4.0% |
| Law | 9 | 3.6% |
| Mathematical Studies | 7 | 2.8% |
| Natural Sciences | 14 | 5.6% |
| Medical Sciences | 13 | 5.2% |
| Civil Engineering/Architecture | 11 | 4.4% |
| Mechanical and Electrical Engineering | 14 | 5.6% |
| Social Sciences | 6 | 2.4% |
| Sports Sciences | 7 | 2.8% |
| Other | 1 | 0.4% |
| Total | 248 | 100% |

Table 2 above identifies the spread of fields of study the respondents are engaged in. The field of study that is most prominent with the respondents is that of Business Studies (53.6%). When a cross tabulation was conducted it was evident that at undergraduate level, the field of study was spread across all the disciplines identified above. At postgraduate and Ph.D. there were specific fields of study being majored in. At Graduate/Masters level (n=15), 66.7% were studying within the field of Business Studies, 13.3% were studying within the field of Mathematical Sciences, 6.7% within the Natural Sciences; 6.7% within the field of Medical Sciences and a final 6.7% within the Social Sciences. The majority of Ph.D. students (n=6) are researching the area of Business Studies (66.6%), 16.7% are researching within the area of Natural Sciences and 16.7% are completing their Ph.D. within the field of Mechanical

and Electrical Engineering.

2.1.1 General Goals After their Studies

The questionnaire questioned the respondents as to which {main} activity they are striving for after they complete their studies. The two options open to the respondents were paid employment or self-employment. They were allowed to choose whether they hoped to achieve this directly after their studies (within 5 years) or 5 years or more after graduation¹. Table 3 identifies the responses for those who would like to work in paid employment, with a further analysis for when they would like to achieve this. Table 4 identifies the responses for those who would like to start-up their own business and the table is further analysed based on the timeframe of within 5 years or 5 years or more after graduation.

Table 3 Paid Employment

| | Directly after studies – within less than 5 years | | 5 years or more after graduation | |
|------------------------------------|---|-------------|----------------------------------|-------------|
| | Frequency | Percent | Frequency | Percent |
| Working in a micro business | 13 | 9.5% | 5 | 8.3% |
| Working in a small business | 23 | 16.5% | 10 | 16.4% |
| Working in a medium-sized business | 31 | 22.3% | 10 | 16.4% |
| Working in a big company | 46 | 33% | 19 | 31.1% |
| Working as a researcher | 11 | 7.9% | 6 | 9.8% |
| Working in civil service | 15 | 10.8% | 11 | 18% |
| Total | 139 | 100% | 61 | 100% |

Table 3 above identifies that 139 respondents envisage going into paid employment directly after completing their studies. Some 33% of respondents who envisage going into paid employment highlighted that they would prefer to work in a big company, with 22.3% of respondents choosing to work in a medium-sized business; followed by 16.5% of respondents wanting to work in a small business. Some 61 respondents identified that they would like to go into paid employment some 5 or more years after graduation. Once again

¹ It appears that even though respondents were asked to choose only one option – either paid employment or self-employment, some respondents decided to choose both options. This results in some skewing of results and the reader must take this on board.

the majority of respondents, 31.1%, choose working in a big company as the option for paid employment.

Table 4 Self-Employed

| | Directly after studies – within less than 5 years | | 5 years or more after graduation | |
|---|--|-------------|-------------------------------------|-------------|
| | Frequency | Percent | Frequency | Percent |
| Getting on with family business | 10 | 20.4% | 3 | 2.2% |
| Taking over an existing business | 1 | 2.1% | 9 | 6.8% |
| Starting up a franchise | 1 | 2.1% | 8 | 5.9% |
| Investing into an existing company | 2 | 4% | 9 | 6.8% |
| Continuing with my founded start-up | 3 | 6.1% | 7 | 5.2% |
| Starting up a business/working as self-employed | 22 | 44.9% | 75 | 55.4% |
| Concentrate on family | 10 | 20.4% | 24 | 17.7% |
| Total | 49 | 100% | 135 | 100% |

Table 4 above identifies the respondents who wish to go into self-employment after completion of their studies. Forty nine respondents envisage going into some form of self-employment within 5 years of completing their studies. Over 44% of respondents identified that they would like to start up a business or work as self-employed directly after studies or within 5 years of completing their studies. Twenty percent of respondents envisage going back into the family business with a further 20% aiming to concentrate on their family. What is good to see from the results is that 6% of respondents aim to continue with their founded business. A total of 135 respondents identified that they would like to go into self-employment 5 years or more after graduation. Within this finding, 55.4% of respondents identified they would like to see themselves as being self-employed. Seventeen percent identified they would like to concentrate on their family. Five percent of respondents identified that 5 years or more after graduation they envisage continuing on with their already founded business. Franchising is an option for start-up for 5.9% of respondents. Some 6.8% of respondents hope to invest in an existing company.

2.1.2 The Creation of a Firm

Respondents were asked if they have personally ever thought of starting up their own business and Table 5 below highlights the results to this question.

Table 5 Thoughts of Building their own Business

| | Frequency | Valid Percent |
|--|------------|---------------|
| No, never | 45 | 18.1% |
| Yes, sketchily | 83 | 33.5% |
| Yes, rather concretely | 32 | 12.9% |
| Yes, but I turned away from it | 16 | 6.5% |
| Yes, I am bound and determined to be self-employed | 50 | 20.2% |
| Yes I already started with the realisation | 14 | 5.6% |
| Yes, I am already self-employed | 3 | 1.2% |
| Yes, I was self-employed but no longer am I | 5 | 2% |
| Total | 248 | 100% |

Table 5 above highlights that on completion of the survey 3.2% of respondents had started their own business, with 2% of these respondents having closed their business since. The majority of respondents identify entrepreneurial aspirations by stating that they have had thoughts of building their own business. Some 5.6% of respondents have already started with the realisation of starting their own business. What is heartening to see is that 20.2% of respondents believe that they are bound to be self-employed and are further determined to be. The majority of respondents identified that they have thoughts of establishing a business however those thoughts are rather sketchy (33.5%), with a further 12.9% concretely thinking about establishing their own business. The responses did highlight that 18.1% of respondents have never thought of establishing their own business.

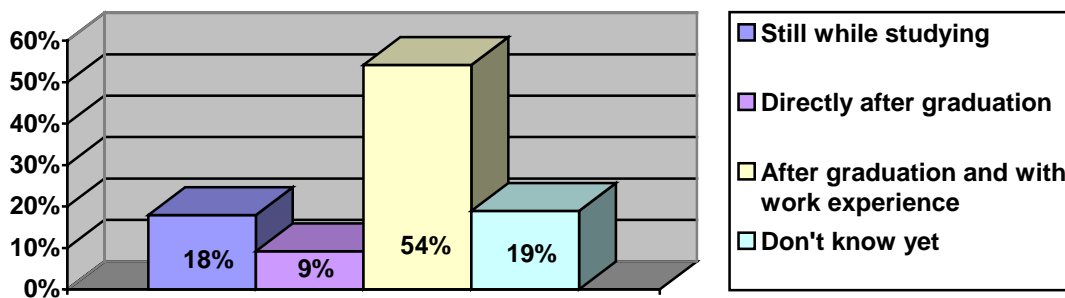
For those respondents who have thought about starting their own business or those who have started their own business, they were further questioned as to what steps they have taken in starting their own business and table 6 below identifies their steps taken.

Table 6 Steps Taken in Starting a Business

| | Frequency | Valid Percent |
|---|-----------|---------------|
| No step taken | 81 | 41.1% |
| Thinking through first business idea(s) | 83 | 42.1% |
| Writing down first business idea(s) | 47 | 23.9% |
| Developing a business plan | 29 | 14.7% |
| Gathering start-up specific information | 32 | 16.2% |
| Visiting start-up specific events | 17 | 8.6% |
| Talking to potential sources of financing | 15 | 7.6% |
| Determining a date of foundation | 8 | 4.1% |
| A prototype of the product exists | 8 | 4.1% |

Over 41.1% of respondents have identified that no steps have been taken in starting their own business. As the table above identifies, respondents have carried out a variety of steps in starting their own business. Some 42.1% of respondents are thinking through their first business idea, 23.9% are writing down their first business idea. Only 14.7% are in the process of developing a business plan. It appears that the majority of respondents are still at the feasibility stage. This finding is based on the fact that 16.2% are gathering specific information pertaining to starting up a business, 8.6% are visiting specific events pertaining to establishing a business; 7.6% are talking to potential sources of financing, 4.1% are determining the date for the foundation of the business and finally, 4.1% are in the process of developing a prototype of their product. For those who are considering establishing a business they were questioned as to when they envisage establishing their business and Figure 3 below illustrates the results. For this question 52 respondents did not reply.

Figure 3 When do you Consider the Foundation of a Business?



The majority of respondents identified that they would consider establishing their business after graduation with work experience. This finding echoes the results presented in Table 4 above where the majority of respondents identified self-employment as a career option after 5 years or more work experience. Interestingly enough 18% would consider establishing a business whilst they are studying. This indicates that these respondents are confident enough that they have the skills and competencies in establishing a business before they graduate from university. Respondents were next questioned about the industry in which they are planning to start up their business or have already started and Table 7 identifies the results. Some 45 (18.1%) of respondents did not answer this question.

Table 7 In which Industry have you or are you Planning to Start up your Business?

| | Frequency | Valid Percent |
|---|-----------|---------------|
| Agriculture | 3 | 1.5% |
| Production | 27 | 13.2% |
| Construction | 14 | 6.9% |
| Wholesale/retail trade | 18 | 8.9% |
| Restaurants and hotels | 15 | 7.4% |
| Transport and storage | 2 | 1% |
| Communication | 6 | 3% |
| Finance, insurance, real estate | 20 | 9.9% |
| Business services | 53 | 26.1% |
| Public administration | 2 | 1% |
| Education | 9 | 4.4% |
| Health and social work | 12 | 5.9% |
| Other community, social and personal services | 22 | 10.8% |

As Table 7 above identifies no specific sector is dominant for business start-up by the respondents. Ireland, up to the mid 1970's was an agricultural based economy, however table 7 reflects the trend of a narrowing of this sector in Ireland with business services (26.1%) being a popular industry sector for business start-ups by the respondents. Table 7 does highlight a worrying finding, that being, little concentration on the manufacturing sector. Manufacturing correlates with the development of intellectual property and creativity of a nation. However, only 13.2% of those who responded envisage entering this sector of industry. Respondents were further questioned as to their experience of the industry in

which they hope to establish or have established their business in. Some 49.8% of respondents indicated that they have no experience in the industry they hope to enter and 50.2% have experience. Of those who indicated that they have work experience in the sector they envisage establishing their business in (n=92), 46.7% have 5 years or less practical work experience in the industry they aim to enter. Some 39.1% have 5 but less than 10 years work experience and 14.2% have more than 10 years practical work experience in the industry they aim to enter.

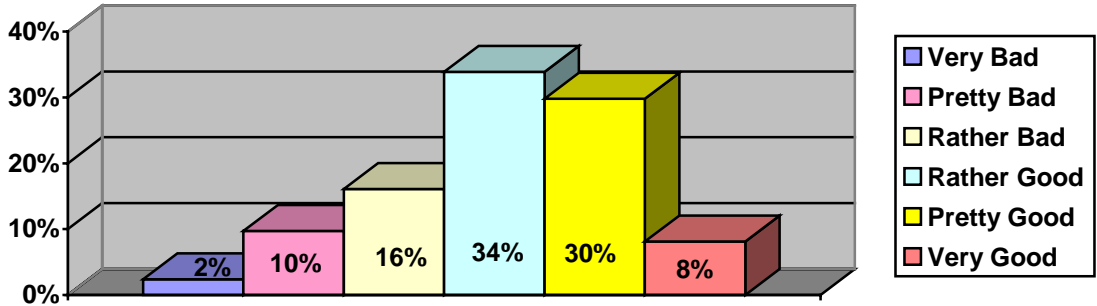
Respondents were asked what would or is the size of the founding team. The respondents were able to choose options such as alone; together with a friend etc. 'Going it alone' was chosen by 47.4% of respondents. This is a bit worrying, as these entrepreneurs will not receive direct support from like-minded entrepreneurs since they are going it alone. By having a team involved in the start-up of the company the team can 'use the power of many'. Forming a team was chosen by 52.6% of respondents. The size of the team varied in size from 2 members to 17 members. The respondents indicated that the source of these partners would be from their current university or college (22.7%), 6.4% identified partners would be sourced from other institutions; 12.8% identified they would start a business with relatives. Interestingly, 33.5% identified partners would be recruited from their personal circle of friends and 12.8% from people outside of university or college.

3 The Macroeconomic Background for entrepreneurial Activities

3.1 The Climate and premises at the Universities

A number of questions were posed to the respondents pertaining to the educational institution they are attending and the climate for establishing a business and whether entrepreneurship modules are offered to them during the course of their studies. Figure 4 below identifies how the respondents judge the climate and conditions at their educational institution in assisting them to start a business.

Figure 4 Climate and Conditions that Help Start a Business



The results depicted in Figure 4 above highlights the overall opinion that respondents were of the belief that the climate and conditions at their educational institution is good for assisting them in starting a business (72%). However, Figure 4 does identify that there is room for improvement within tertiary level education institutions in Ireland since 28% of respondents answered that the climate and conditions that help start a business is of some degree bad within their institution.

3.2 Lectures about entrepreneurship

Respondents were asked if they have attended any lectures or events on the topic of entrepreneurship within their institution. Some 35.9% of respondents identified that they have not attended any lectures or events and 13.7% identified that such lectures or events have not been offered to them yet. However, 50.4% of respondents have attended lectures or events on the topic of entrepreneurship.

3.3 Support-possibilities for creating a company

Respondents were then asked what kind of support for starting up a business would they like to be offered by their institution. The most popular choice was that of providing coaching for starting up a business. The next most popular choice was that of providing business plan seminars. Respondents also would like general seminars and lectures on the topic of starting up a business; access to business game simulations, which focus on starting up a business; and opportunities to attend get-togethers and discussions with other young entrepreneurs (e.g. clubs). However, these findings indicate that the respondents are of the belief that the basic entrepreneurship concepts, such as business planning are not being offered by their institution. This indicates either a lack of communication by the institution or the institution not providing these opportunities whatsoever to potential entrepreneurs.

4 The Personal Background for Entrepreneurial Activities

This section of the report relates to the respondents personal background. Personal background was examined by looking at the respondents' personality, their locus of control; their motives; skills and competencies and finally their family background.

4.1 The Personality

Personality was examined by looking at two constructs: the 'Big 5' and locus of control. This section of the questionnaire was influenced by the models devised by Schallberger and Ventez (1999) and Krampen (1991). The 'Big 5' consists of: extroversion; compatibility; conscientiousness; emotional stability and the respondents' culture. The second construct of personality examined the respondent's locus of control.

Concerning extroversion, respondents were asked to rate their level of talkativeness, whether they were good-natured, their thoroughness, if they are sociable and if they are open and the following table, Table 8, illustrates the results.

Table 8 Respondents Extroversion

| Element of Extroversion | Response | Frequency | Valid Percent |
|--------------------------------|-----------------|------------------|----------------------|
| Talkativeness | Quiet | 47 | 18.9% |
| | Talkative | 201 | 81.1% |
| Sociable | Unsociable | 21 | 8.5% |
| | Sociable | 227 | 91.5% |
| Companionability | Solitary | 23 | 9.3% |
| | Companionable | 225 | 90.7% |
| Sociability | Reclusive | 15 | 6% |
| | Social | 233 | 94% |
| Openness | Closed | 61 | 24.6% |
| | Open | 187 | 75.4% |

Table 8 above identifies that the majority of respondents to the questionnaire are extroverted. This is evidenced by the fact that 81.1% are talkative, 91.5% are sociable; 90.7% are companionable; 94% are sociable and 75.4% believe they are open and these are the factors that are normally associated with extroverted people. Compatibility was the next section of personality examined and Table 9 below identifies the results.

Table 9 Respondents Compatibility

| Element of Compatibility | Response | Frequency | Valid Percent |
|---------------------------------|-----------------|------------------|----------------------|
| Good-Naturedness | Crabby | 3 | 1.2% |
| | Good Natured | 245 | 98.8% |
| Forbearance | Abrupt | 42 | 16.9% |
| | Forgiving | 206 | 83.1% |
| Unselfishness | Selfish | 49 | 19.8% |
| | Unselfish | 199 | 80.2% |
| Peacefulness | Aggressive | 51 | 20.5% |
| | Peace-loving | 197 | 79.5% |
| Soft-heartedness | Ruthless | 55 | 22.2% |
| | Soft-hearted | 193 | 77.8% |

The Table above identifies that 98.8% are good-natured; 83.1% are forgiving; 80.2% are not selfish; 79.5% are peace loving; and 77.8% are softhearted. The results indicate that 22.2% are ruthless and the remainder are softhearted. Being in business requires a certain amount of ruthlessness and being softhearted is not necessarily a good quality of an entrepreneur.

Conscientiousness examined the respondents' thoroughness; their tidiness; how exact they are; how conscientious they are and how orderly they are. As identified by Table 10 below 82.6% display thoroughness, 82.7% are tidy; 83.5% are meticulous; 85.5% are conscientious and 85.9% are orderly.

Table 10 Respondents Conscientiousness

| Elements of Conscientiousness | Response | Frequency | Valid Percent |
|--------------------------------------|-----------------|------------------|----------------------|
| Thoroughness | Frowsy | 43 | 17.3% |
| | Thorough | 205 | 82.6% |
| Tidiness | Untidy | 43 | 17.3% |
| | Tidy | 205 | 82.7% |
| Exactness | Imprecise | 41 | 16.5% |
| | Meticulous | 207 | 83.5% |
| Conscientiousness | Careless | 36 | 14.5% |
| | Conscientious | 212 | 85.5% |
| Orderliness | Unwary | 35 | 14.1% |
| | Orderly | 213 | 85.9% |

Table 11 below examines the respondents emotional stability through examining their robustness, self-satisfaction; whether they are relaxed, if they are emotionally stable and their level of confidence. As the Table identifies, the majority of respondents believe they are robust (85.9%); 77% are self-content, 77% are relaxed; 92% believe they are emotionally stable and 88.7% are confident individuals. All these qualities are important for anyone establishing or running a business in today's business environment.

Table 11 Respondents Emotional Stability

| Elements of Emotionally Stable | Response | Frequency | Valid Percent |
|---------------------------------------|-----------------|------------------|----------------------|
| Robustness | Vulnerable | 35 | 14.1% |
| | Robust | 213 | 85.9% |
| Self-satisfaction | Self-pitying | 57 | 23% |
| | Self-content | 191 | 77% |
| Relaxation | Sensitive | 57 | 23% |
| | Relaxed | 191 | 77% |

| | | | |
|---------------------------|-----------|-----|-------|
| Emotionally stable | Unstable | 20 | 8% |
| | Stable | 228 | 92% |
| Confidence | Insecure | 28 | 11.3% |
| | Confident | 220 | 88.7% |

The final section of personality relates to the respondents culture. Respondents were asked to evaluate their artisticness; their creativity; their originality; imaginativeness; and their level of intellect. As Table 12 below identifies 54.1% of respondents believe they are artistic; however 45.9% identified they are inartistic. Some 81.5% of respondents identified that they are creative individuals and 18.5% identifying they are not creative. Some 56.5% of respondents identified that they were original in their thinking however, 43.5% were conventional. Concerning imagination; 84.7% of respondents identified that they were imaginative and 15.3% saying they were unimaginative. The final question pertaining to this section examined the respondents' intellect. Surprisingly, 69.4% of respondents identified that they were intellectual with a corresponding 30.6% saying they were ignorant.

Table 12 Respondents Culture

| Elements of Culture | Response | Frequency | Valid Percent |
|----------------------------|-----------------|------------------|----------------------|
| Artisticness | Inartistic | 114 | 45.9% |
| | Artistic | 134 | 54.1% |
| Creativity | Uncreative | 46 | 18.5% |
| | Creative | 203 | 81.5% |
| Originality | Conventional | 108 | 43.5% |
| | Original | 140 | 56.5% |
| Imaginativeness | Unimaginative | 38 | 15.3% |
| | Imaginative | 210 | 84.7% |
| Intellect | Ignorant | 76 | 30.6% |
| | Intellectual | 172 | 69.4% |

4.2 Locus of control

The final section of the personality element of the questionnaire, examined the respondents locus of control. The model that influenced the locus of control section of the questionnaire was that of Krampen (1991). Krampen's (1991) questionnaire of locus of control measures respondents' general beliefs. Locus of control is a concept defining whether a person believes he/she is in control of his/her future or someone else is in control of it. For example, we all know people who believe they have no control over their lives. They believe that what happens to them is dictated by outside forces. People who feel they are victims of outside forces have an external locus of control – 'it's not my fault this happened to me'. By contrast, entrepreneurs have a very strong internal locus of control. They believe their future is determined by the choices they make. The following results indicate the respondents perception of their locus of control.

Table 13 Locus of Control

| | Very true | True | Rather true | Rather false | False | Very false |
|--|-----------|-------|-------------|--------------|-------|------------|
| Depends on if people act in accordance with my wishes | 12.1% | 34.7% | 35.1% | 12.9% | 4.4% | 0.8% |
| Whether I have an accident or not depends on me and my behaviour | 16.1% | 36.7% | 25.8% | 10.5% | 6.5% | 4.4% |
| When I make a plan, I am completely sure that the plan will become reality | 7.3% | 26.2% | 39.9% | 18.1% | 4.8% | 3.6% |
| I can best protect myself from diseases of my own behaviour | 20.2% | 30.2% | 23.4% | 15.3% | 7.7% | 3.2% |
| I myself can determine very much of what's going on in my life | 23.4% | 40.3% | 27.4% | 4.8% | 2.8% | 1.2% |
| Normally I can represent my interests myself and thereby achieve what I want | 20.2% | 39.9% | 32.7% | 6% | 0.8% | 0.4% |
| If I get what I want it the result of my endeavour and personal commitment | 21.4% | 37.1% | 30.6% | 7.7% | 2.4% | 0.8% |
| My way of life is solely dependent on my wishes and behaviour | 15.3% | 33.5% | 32.7% | 13.7% | 3.6% | 1.2% |

As Table 13 above illustrates, the majority of responses are within the bracket of rather true to very true for the questions posed in this section of the questionnaire. This means that the majority of respondents believe that they can control their own destiny and are not influenced by others or by outside forces. For example, the majority of respondents identified that if they were to have an accident this would be as a result of their behaviour and not an outside influencing factor. An overwhelming majority of respondents were of the belief that they can determine very much their own life. If the respondents were to have an external locus of control, meaning others determine things for them, thus not being very entrepreneurial, they would not have responded that they could determine their own life. The overall results that can be determined by this table is that the majority of respondents could be described as having an internal locus of control, which is one of the characteristics of being an entrepreneur.

4.3 Motives

This section of the questionnaire was influenced by findings from the studies conducted by the University of St. Gallen in 2003 and KwF's study in 2004 and Kolvereid (1996). This involved examining the degree of importance of independence; leisure time; creativity, solution orientation and safety orientation. The respondents were asked to rate their motives in connection with their working life/career after their studies.

Table 14 Respondents Motives

| | Very important | Pretty important | Rather important | Rather unimportant | Pretty unimportant | Very unimportant |
|-------------------------|----------------|------------------|------------------|--------------------|--------------------|------------------|
| Independence | | | | | | |
| Freedom | 45.6% | 32.7% | 17.3% | 2.4% | 0.4% | 1.6% |
| Realise your own dream | 54.4% | 29% | 13.7% | 1.2% | 0% | 1.6% |
| Be your own boss | 31.5% | 25.8% | 20.6% | 17.3% | 2.8% | 2.0% |
| Independence | 50.8% | 31.5% | 11.7% | 4.8% | 0.8% | 0.4% |
| Autonomy of decision | 27.4% | 44.4% | 21.8% | 5.6% | 0.4% | 0.4% |
| Influence of salary | 29.8% | 39.1% | 22.2% | 6.5% | 1.6% | 0.8% |
| Leisure time | | | | | | |
| Sufficient leisure time | 38.7% | 34.3% | 20.6% | 3.6% | 2% | 0.8% |

| | | | | | | |
|--|-------|-------|-------|-------|-------|-------|
| Less stressful job | 31.5% | 30.2% | 19.8% | 14.1% | 3.6% | 0.8% |
| Not too many extra hours | 10.1% | 21.4% | 23.8% | 30.6% | 9.3% | 4.8% |
| Fixed and regular hours | 14.5% | 27% | 20.2% | 21.8% | 8.9% | 7.7% |
| Easy tasks | 8.9% | 13.3% | 21.8% | 31.9% | 12.5% | 11.7% |
| Creativity | | | | | | |
| Create something | 19.8% | 33.5% | 24.6% | 15.7% | 4% | 2.4% |
| Seize advantage from creative potential | 25.8% | 37.9% | 24.2% | 9.3% | 1.6% | 1.2% |
| Challenges in the job | 42.7% | 39.5% | 13.3% | 2.8% | 0.4% | 1.2% |
| Solution Orientation | | | | | | |
| Enhance the degree of detail of existing solutions | 9.7% | 27.8% | 33.9% | 20.6% | 3.6% | 4.4% |
| Optimise existing products/services | 17.3% | 31% | 32.3% | 12.5% | 4% | 2.8% |
| Safety orientation | | | | | | |
| Job Security | 40.3% | 27.8 | 23% | 5.2% | 2% | 1.6% |
| Stable conditions on the job | 33.5% | 33.5% | 23.4% | 4.4% | 4.4% | 0.8% |

Concerning independence, Table 14 above identifies that the majority of respondents identified that freedom is very (45.6%) or pretty (32.7%) important to them. Therefore, within their working life they would like to have some freedom. In the majority of cases freedom is hard to find within a bureaucratic organization however freedom can be achieved through an entrepreneurial venture. Being your own boss was viewed as being very important by 54.4% of respondents. Furthermore, 25.8% viewed this element of independence, that being your own boss, as being pretty important and 20.6% viewed it as being rather important. This therefore indicates that the majority of respondents would like to establish a business whereby they are the founder of the business. An overwhelming majority of respondents identified independence as being important. In order to achieve this motive the best avenue for the respondents is to establish their own business. The majority of respondents rated having autonomy of decision-making as important. If these motivating factors were to be achieved by the respondents the best avenue for them would be to establish their own venture.

The next motivating factor is that of leisure time. Within, leisure time, the majority of respondents rated having sufficient leisure time as important. This however is a difficult thing to achieve when starting and running your own business but it appears that even though respondents would like to be their own boss they are not willing to sacrifice their leisure time. This however is a oxymoron since running your own business does not leave one with much leisure time. Respondents viewed having a less stressful job as important. This would however be hard to achieve when starting or running your own business as typically the founder of a business must 'wear all the hats of the business' until it is well established. There was a mixed response as to not having too many extra hours as 55.3% deemed it as being important and 44.7% deemed it as unimportant. Having fixed and regular hours was deemed to be important by 61.7% of respondents. This however would be difficult to achieve as entrepreneurs typically do not have a normal working day as when compared to people employed by others. The final question pertaining to leisure time questioned the respondents as to 'easy tasks'. The results indicate that the respondents like to have a challenge as 56.1% identified that having easy tasks was unimportant.

Creativity was another area of motives examined by the questionnaire. Respondents were questioned as to the importance of creating something and the connection with their future working life and the majority identified that this was important to them. Additionally, seizing advantages from creativity potential was deemed to be important (88.1%) by them. The last question pertaining to creativity was that of having challenges in their job. An overwhelming majority of respondents (95.5%) identified that they view challenges in the job as been a motivating factor for their choice of career. This is a refreshing finding because if one was to establish a business, the founder will be faced with a plethora of challenges. Safety orientation was another area of motives examined by the questionnaire. Respondents were asked as to the level of importance of job security and conditions of the job and their future career. The majority of respondents identified that job security (91.1%) was important to them as was stable conditions of the job (90.4%).

4.4 Skill and Competencies

This step of the creation process was influenced by the model of skills and competencies by Grichnik and Hisrich (2005).

Table 15 Skills and Competencies of Respondents

| | Very well | Pretty well | Rather well | Rather bad | Pretty bad | Very bad |
|---|-----------|-------------|-------------|------------|------------|----------|
| I can.... Communicate | 35.9% | 36.3% | 23.4% | 2.8% | 0.8% | 0.8% |
| I can....present | 25.4% | 38.3% | 26.6% | 7.3% | 1.6% | 0.8% |
| I can....represent my opinion | 27.8% | 41.5% | 21.8% | 7.3% | 1.2% | 0.4% |
| I can....co-ordinate tasks | 28.6% | 43.1% | 21% | 5.2% | 1.2% | 0.8% |
| I can....develop alternative plans | 23.8% | 41.1% | 25.8% | 7.7% | 0.8% | 0.8% |
| I can....hand tasks over to a 3 rd party | 13.7% | 35.5% | 31% | 12.5% | 5.6% | 1.6% |
| I can....co-operate with others | 31.9% | 41.9% | 21.4% | 2.4% | 2% | 0.4% |
| I can....negotiate | 22.2% | 42.7% | 28.2% | 5.6% | 0.8% | 0.4% |
| I can....sell | 20.2% | 26.6% | 32.7% | 14.9% | 3.2% | 2.4% |
| I can....organise and plan | 30.2% | 40.3% | 21.4% | 4.8% | 2.4% | 0.8% |
| I can....handle numbers | 35.1% | 31.9% | 23% | 6.5% | 2.8% | 0.8% |
| I can....handle technical devices | 37.9% | 35.1% | 18.5% | 5.6% | 2% | 0.8% |
| My literacy is.... | 46.8% | 36.7% | 15.3% | 0.8% | 0% | 0.4% |
| My interaction with people is.... | 40.3% | 41.4% | 16.5% | 0.8% | 0.8% | 0.4% |

Irish respondents appear to be quite positive in their responses concerning their skills and competencies. An overwhelming majority of respondents identified that they can do the following either very well; pretty well or rather well: communicate (95.6%); present (89.3%); represent their opinion (91.1%); co-ordinate tasks (92.7%); develop alternative plans (90.7%); delegate (80.2%); co-operate with others (95.2%); negotiate (93.1%); organise and plan (91.9%); handle numbers (90%); handle technical devices (91.5%). The majority also identified their literacy rates as being very well (98.8%) and their ability to interact with people as being very, rather or pretty well (98.2%). The only skill and competency that emerged as being weak, in comparison to the aforementioned skills and competencies, was that of selling. Some 79.5% identified that they could sell very, pretty or rather well.

4.5 Family-Background

The final section of the personal background of the respondents examined the socio-demographic factors of the respondents family, their age, and gender. The first socio-demographic factor examined if the respondents had grown up in an entrepreneurial family (i.e. their father and/or mother were self-employed) and Figure 5 presents the results of this question.

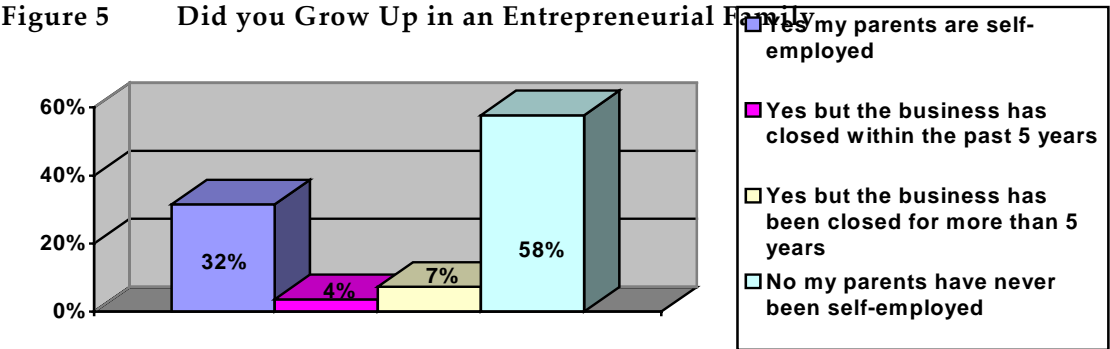


Figure 5 above identifies that the majority of respondents (58%) have parents who were/are not self-employed, with the remaining 42% having parents who were/are self-employed. Not having entrepreneurial parents does not preclude potential entrepreneurs from establishing a business in the future, however it does make potential entrepreneurs aware of the demands it takes to run and operate a business. Interestingly, of those whose parents established a business (42%) some 11% of those businesses have closed. The next question pertaining to the socio-demographic factors of the respondents relate to the family business and whether their feelings were positive or negative. A total of 105 respondents answered this question.

Figure 6 Feelings they Connect with their Family Business

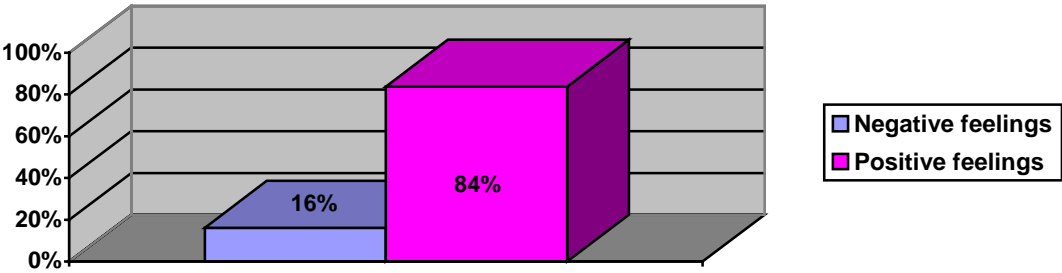


Figure 6 above identifies that 84% of respondents had positive feelings from their family business and only 16% of respondents having negative feelings. Figure 6 above also identifies that all respondents who had self-employed parents (42% or n=105) considered their business to be a family business. Thus, business start-ups by the parents of respondents have been with family members and most often than not as husband and wife teams (co-preneurs). The majority of respondents were born in the 1980's (84%), 12% were born in the 1970's with the remaining respondents born in the 1960s (3.6%) and the 1950s (1%). Surprisingly enough the gender breakdown of the respondents to the survey identifies that the majority of respondents were female (52%) with the remaining respondents being male (48%). English was the prominent mother tongue of the respondents (94%), however other nationalities were also represented such as German, French, Italian, Chinese, Greek and Polish. These other languages being the mother tongue of the respondents indicate the beginning of the cultural diversity of Ireland occurring.

5 Hurdles Facing a Company

The final section of this report identifies the views of the respondents pertaining to hurdles for starting up a business in Ireland and Table 16 below, illustrates the overall results.

Table 16 Greatest Hurdles for Starting Up a Business

| | Very big hurdle | Pretty big hurdle | Rather big hurdle | Rather small hurdle | Pretty small hurdle | Very small hurdle |
|-----------------------------------|------------------------|--------------------------|--------------------------|----------------------------|----------------------------|--------------------------|
| Lack of the right business idea | 26.2% | 20.2% | 20.6% | 16.1% | 9.7% | 7.3% |
| Complicated regulatory efforts | 7.7% | 12.5% | 35.1% | 26.6% | 12.9% | 5.2% |
| Own financial risk | 22.6% | 23.8% | 24.6% | 14.9% | 10.1% | 4% |
| Lack of courage | 19% | 19.4% | 21.8% | 19.8% | 10.9% | 9.3% |
| Lack of right founding partner | 14.1% | 18.5% | 21.4% | 24.6% | 12.5% | 8.9% |
| Lack of equity | 21% | 24.2% | 24.6% | 19.4% | 6.9% | 4% |
| Lack of dept capital | 19.8% | 25% | 28.2% | 16.1% | 7.7% | 3.2% |
| Know-how-deficit | 10.9% | 19% | 25.4% | 26.2% | 13.3% | 5.2% |
| Lack of contact clients/customers | 14.1% | 19.8% | 28.6% | 19.4% | 12.1% | 6% |
| Economic cycle | 6% | 12.9% | 33.5% | 29% | 11.7% | 6.9% |
| Business environment | 6% | 12.9% | 31.9% | 29% | 12.9% | 7.3% |
| Fear of failure | 19% | 19.4% | 15.7% | 21% | 14.9% | 10.1% |
| Support by family and friends | 10.1% | 8.9% | 8.1% | 21.8% | 22.2% | 29% |
| Lack of time | 8.5% | 19% | 21% | 19.8% | 13.7% | 18.1% |
| Lack of entrepreneurial skills | 15.3% | 14.5% | 19.4% | 20.2% | 15.7% | 14.9% |

The findings presented in the Table above identifies that the biggest hurdles respondents see in starting up a business is that which is related to finance and funding. An overwhelming majority of respondents (71%) identified that the biggest hurdle for starting up a business is their lack of debt equity (73%) with financial risk coming a close second (71%) followed by lack of equity (69.8%). Other hurdles that respondents believe they may face when starting up a business were the lack of the right business idea (67%); lack of contact with clients and

customers (62%) and lack of courage (60.2%). Interestingly, the Irish respondents identified that family and friends would be a small hurdle to overcome, which indicates the acceptance (and possibly the encouragement) of Irish people towards new venture creation.

6 Conclusions and Recommendations

As outlined in this report, Ireland is a country that is very entrepreneurial and is maintaining its lead in relation to its early stage entrepreneurial activity. The performance of the small business sector is thus an important contributor to the overall quality of life and standard of living in Ireland. If Ireland is to maintain its current entrepreneurial culture it is imperative to educate the entrepreneurs of the future. The findings of this study identify that entrepreneurship is being taught in all types of tertiary level institutions in Ireland i.e. Universities, Institutes of Technologies and private institutions. Additionally, entrepreneurship subjects are being taught at undergraduate, postgraduate and executive level, thus providing all levels of students (i.e. undergraduate, postgraduate, adult learners) with the skills and competencies to found a business and have self-employment as a career option. The findings of the study also identify that entrepreneurship is taught to interdisciplinary students thus enabling students, who are completing a non-business related field of study, the opportunity to learn how to found a business.

The study examined the respondents' goals after they completed their studies. For those whose goal it was to go into paid employment directly after completing their studies, 33% of respondents identified 'working in a big company', 11% to work in the civil service and 8% as a researcher. The remaining respondents identified the SME sector as the business choice for them, with 10% identifying the wish to work for a micro business, 16% in a small business and 22% in a medium-sized business. The conclusion that can be derived from this is that students do not see working in a micro or small sized company as a [primary] career choice for them. The recommendation posited here is that owner/managers of businesses classified as SMEs need to communicate to tertiary level students the benefits of working for a small business. Additionally, educators should be supporting the small businesses in their message and give owner/managers of SMEs the opportunity to come and talk to students about operating and working for an SME.

For those whose goal it is to be self-employed *directly* after completing their studies (n=49), 45% identified that they would like to start up a business. However this figure almost tripled in its response when respondents identified self-employment as a career option 5 or more years after graduation (n=75). This is heartening to know that students would still consider self-employment sometime in the future. What can also be inferred from this finding is that students would prefer to work for a period of time in someone else's business before

becoming self-employed.

Respondents were questioned as to whether or not they have had any thoughts of establishing their own business whilst studying. Only 18% of respondents identified that they had no thoughts whatsoever. What is encouraging to see is that the remaining 82% of respondents have had some thoughts or have started with the realisation and founded a business. This indicates that even at a young age Irish people are creative in their thinking and also see self-employment as a career option. The study however identifies that there is room for improvement within the academic institutions in Ireland for the creation of a climate for establishing a business. Even though it has been mentioned previously that Ireland's universities and IT's have designated courses on entrepreneurship, there is the possibility that some institutions do not offer such courses or where they are offered they are only offered to a select body of students. This is evidenced by the fact that 36% of respondents have identified that they have not attended any lectures or events on entrepreneurship with a further 14% saying that such lectures and events have not been offered to them yet. Respondents were further questioned as to the kind of support they would like to be offered by their institution for starting up a business.

The recommendations for tertiary level educators is that if entrepreneurship is not already part of their curriculum it should be considered as students from non-business courses are equally as likely to establish a business as a student studying within the business field. Additionally when entrepreneurship related events occur all efforts should be made to include the whole student body. Additionally, faculty should be appointed to these budding entrepreneurs as mentors so as to assist them whilst they are formulating, investigating and establishing their business.

The study examined the personal background for entrepreneurial activities with a focus on the respondents' personality, their locus of control, their motives, skills and competencies and the influence of the family background. The concept of personality was influenced by the study conducted by Schallberger and Ventez (1999), which examined models of personality. In applying elements of their models of personality to the respondents for this study, the findings indicate that the majority of respondents are extroverted; they are highly compatible and conscientious and highly stable in terms of their emotions. These findings are quite heartening as these personality traits are important for entrepreneurs when establishing and running a business.

One element of personality that did not score as highly as the other elements of personality was that pertaining to the respondents' culture. Artisticness was an element of culture examined and the majority of respondents (54%) identified they were artistic. However, 46% identified they were inartistic. Furthermore, 44% of respondents identified that they were conventional in their thinking. An important facet of entrepreneurship and new venture development is to be creative and original in your thinking as this is how the majority of new business ideas evolve. Therefore, for educators it is important that creativity tools and techniques are taught to students so as to develop their creative thinking and become original in their ideas.

Next, respondents were questioned as to their locus of control. Krampen's (1991) model influenced the questions posed as to the respondents' locus of control. The key outcome of this section of the report highlights that the majority of respondents believe that they have an internal locus of control, which is a typical personality trait of an entrepreneur. The motives section of the personality construct was influenced by previous studies conducted by the University of St.Gallen, KwF's study in 2004 and the researcher Kolvereid (1996). This involved rating the degree of importance; leisure time; creativity; solution orientation and safety orientation in connection with their working life or career after their studies. Firstly they were asked to rate their views on the importance of independence and the majority of respondents stated that this was important to them. Previous studies have highlighted that a key-driving factor for founding a business stems from the desire for independence. Therefore the findings of this study concur with the results of previous research.

Leisure time was the second element of motives examined. Interestingly the findings of this study identified that the majority of respondents identified that having sufficient leisure time was important to them. However, being an owner/manager of a business it is hard to allocate leisure time in the first few years of starting a business. It is therefore important for educators to convey the demands of establishing and running a business and how this can impinge on one's leisure time. Additionally, having a less stressful job was important to the majority of respondents. This however would not be the case when founding a business as running a business is an extremely stressful situation.

Creativity was also examined within the area of motives and the main finding was that creativity was important to them. Additionally, seizing advantages from creativity potential

was deemed to be important by the majority of respondents. However, when one cross-examines this motive with that of the climate for creativity within the institution it identifies that even though respondents believe creativity is important to them they are not necessarily getting the opportunity within the tertiary level institution to learn and practice creativity. Therefore, educators need to ensure that the climate for creativity is enabled and communicated to students as they have a desire to learn and practice this. The final component of motives examined respondents views of challenges in their job and the majority viewed having a challenge as a motivating factor. This is encouraging because being an entrepreneur is a challenge and the respondents may relish this environment then. However, the results also indicate that an overwhelming majority of respondents identified that job security (91.1%) and having stable conditions (90.4%) was important to them. It is imperative that when educators are discussing self-employment as a career option with students that they explain how entrepreneurship is typically associated with uncertainty and that businesses which are newly conceived are often operating in a highly competitive and charged market which leads to unstable conditions in ones job.

The penultimate section on personal background examined the skills and competencies of the respondents. The findings from this section are quite positive in that the majority of respondents believe that they are very good at the skills necessary for dealing with customers, for communicating and dealing with figures. However, selling emerged as a skill and competency that was weak in comparison to the other skills identified. The recommendation for educators is to ensure that a programme on selling is offered within the entrepreneurship curriculum as it is a skill that is necessary when establishing and running a business. The final section examined the family background of the respondents. The findings of this section appear to concur with the findings of other studies such as the Global Entrepreneurship Monitor Report for Ireland 2005, in that entrepreneurs are between the ages of 25 and 35 and that they come from entrepreneurial families.

The final section of the study examined the hurdles faced when starting a business. The key hurdles identified by the respondents were that of financing and funding a start-up business. Within financing and funding a business, the respondents identified their lack of debt equity as being an issue along with the burden of the financial risk associated with starting a new business. Following on from this was the lack of business ideas; lack of contact with clients and customers and lack of courage. These hurdles however are easily overcome by providing students in tertiary level education with the following:

- A forum in which they can meet representatives from government grant agencies such as the local Enterprise Boards; Enterprise Ireland etc. Provide seminars by the national banks on what they see as good business ideas and plans. Local accountants can provide seminars on financial matters. The result of providing these forums and seminars should enable students to be more aware of the financial issues facing their business but also the means by which they can avail of funding.
- The pedagogy of entrepreneurship courses in Ireland should enable students to give presentations; participate in group work and have feedback sessions with their peers. By providing this type of pedagogy it should enable students to develop their self-confidence.

The overall conclusion that can be derived from this study is that entrepreneurship is very much a part of the Irish psyche and is considered by students as a potential career option. The study identifies areas of improvement with accompanying recommendations to solve these issues.

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Appendix I

Countries Involved in the Study

| Country | Institute | Partner |
|---------------|---|--------------------------------|
| Switzerland | Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) | Prof. Dr. Urs Fueglistaller |
| Germany | KfW-Endowed Chair for Entrepreneurship at European Business School (ebs) | Prof. Dr. Heinz Klandt |
| Austria | Institut für Unternehmensgründung und Unternehmensentwicklung an der Johannes Kepler Universität Linz | Prof. Dr. Norbert Kailer |
| France | UPR Stratégie et Organisation, EM Lyon | Prof. Dr. Alain Fayoll |
| Belgium | Vlerick Leuven Gent Management School, Gent | Prof. Dr. Hans Crijns |
| Liechtenstein | Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) | Prof. Dr. Urs Fueglistaller |
| Ireland | Department of Management and Marketing, University of Limerick | Dr. Naomi Birdthistle |
| Finland | Tampere University of Technology | Prof. Dr. Asko Miettinen |
| Norway | Department of Strategy and Management, Norwegian School of Economics and Business Administration | Prof. Dr. Johannessen Tor Aase |
| Hungary | University of Pecs, Faculty of Business and Economics | Ass. Prof. Laszlo Szerb |
| New Zealand | University of Otago/Department of Marketing | Jürgen Gnoth, PhD |
| Australia | Murdoch University/Murdoch Business School | Prof. Dr. Brian Gibson |
| South Africa | North-West University | Prof. Dr. De Klerk Deon J. |
| Singapore | Lee Kong China School of Business, Singapore Management University | Prof. Dr. Wee-Liang Tan |

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